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# Montana and the Sky



by  
Frank W. Wiley

*Beginning of Aviation  
in the land of the  
Shining Mountains*







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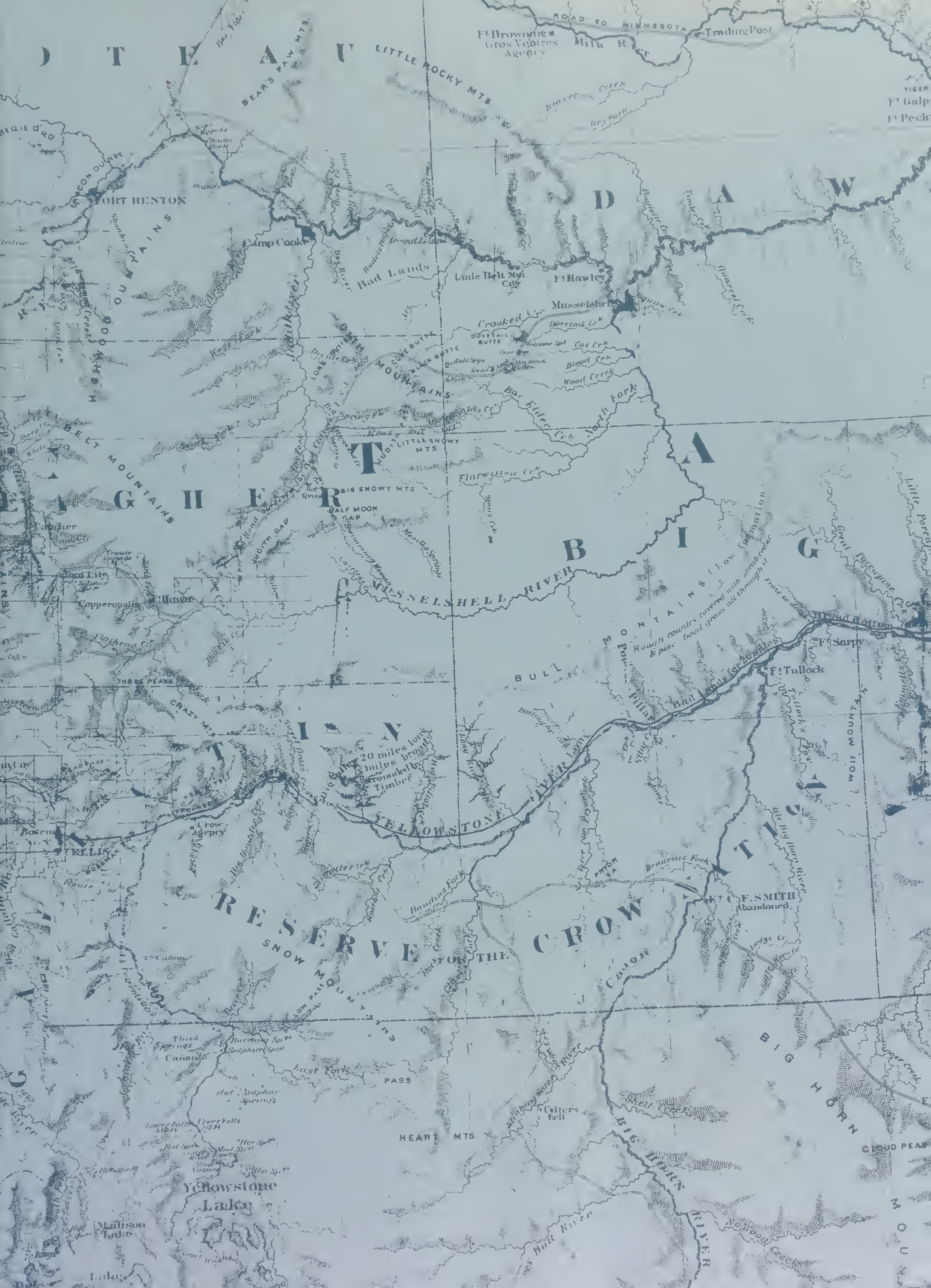
It took a rugged spirit and hearty constitution to fly the early airplanes — especially in the mountain West where life was rugged anyway. But the thought of flying — treacherous or not — was immensely intriguing to adventure seekers, and aviation quickly shed its skeptics to build a daring and enthusiastic band of supporters.

The author is a product of that western atmosphere, being born into the current of airplane excitement and growing up to the tune of bigger and faster flying machines. Mr. Wiley was a Montana youth of only 19 years when the flying fever touched him. That was 1919, the year a twin-engine Martin bomber attracted national attention from its 10,000-mile “around the rim flight” to circle the borders of the United States.

This World War I plane had scheduled stops in several Montana communities, including the historic cow-town of Miles City, Wiley’s home. That dramatic venture strong-











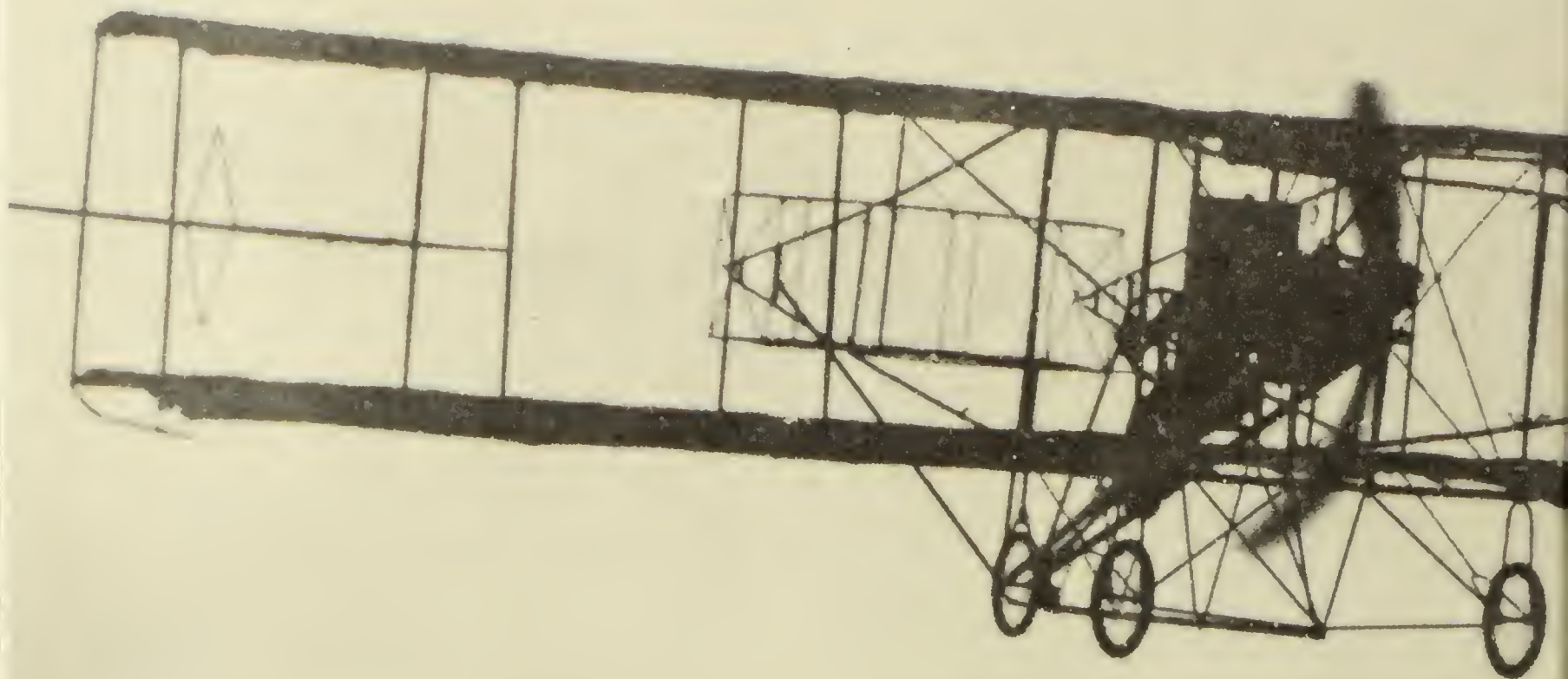


# Montana and the Sky

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*The Beginning of Aviation  
in the Land of the Shining Mountains*

PUBLISHED BY THE MONTANA AERONAUTICS COMMISSION





# Montana and the Sky

by Frank W. Wiley






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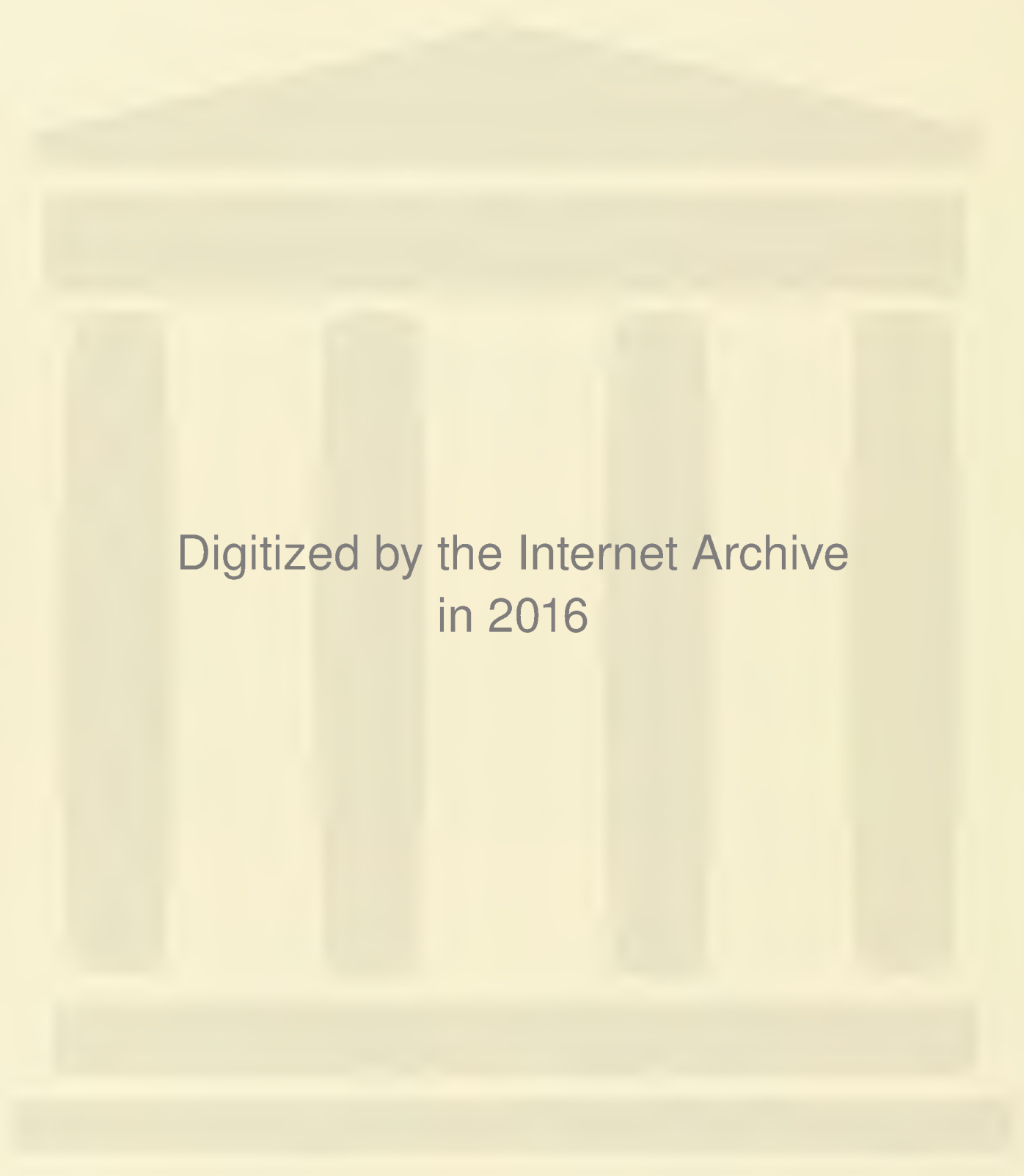
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# An Appreciation

of FRANK W. WILEY

*by the pilots, young and old, living and dead,  
of the state of Montana.*

Having known the author of this volume since 1919, the pleasant task of recording his aerial achievements presents no problem. The reader's attention is directed to the constant theme of self-effacement and understatement so characteristic of Frank W. Wiley. This quality has been and is a lifetime habit of his.

Every youngster should, when very young, realize a dream. It gives to him a kind of faith to take into the uncharted land of the future, a belief in the possibilities of life. It should be a dream of great magnitude, an important one, and one that he believes impossible of fulfillment—like being a railroad engineer or a chief of police. Frank's dream was to become a pilot's pilot. He made his dream come true.

The author first involved himself with aviation a few short years after the Wright Brothers had proven that man could fly. The plane of those days, then as now, flew into the wind. It was always in danger of its own structure and mechanism, constantly threatened with downdrafts, clear-air turbulence, and weird problems of control; but it has survived in memory as the greatest and most loved adventure that America has produced.

Many histories of aviation—private, commercial and air mail—have been written, but this is the first and only volume on these subjects relating to Montana, the Treasure State, and this book is a treasure of aviation facts over a period from 1865 to 1930. This, then, is the story from the author's own knowledge, and from facts he has documented from 1919 to 1965. It encompasses the pilots he knew, the planes and equipment, the men whose faith in the future of the airplane helped make the industry what it is today. Many of the pioneers died for holding this faith, this belief that the conquest of the air could be a contribution to humanity.

Fortunately, Frank Wiley survived over forty years as a pilot to bring into being this history of Montana aviation.

One could, without exaggeration, entitle this volume, "Montana — Jennies to Jets," by Chief Pilot Frank W. Wiley, and be accurate and correct. It was his vision, perseverance, ingenuity and daring that made aviation history in Montana possible.

Thus this history has been prepared for posterity by the one man in this state available to provide first-hand knowledge of the almost insurmountable problems that were conquered over the years.

In this volume the reader will learn to know the planes and pilots, their work, ordeals, sacrifices, and their rewards.

Helena, Montana  
August 14th, 1965.

STANLEY M. "LARRY" DOYLE  
*Associate Justice, Montana Supreme Court*







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# Introduction

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This story of Montana aviation is a compilation of factual and documented accounts of the accomplishments of Montanans who have contributed to aviation. Included are the related activities of other pilots who have been associated with aviation in our state. The objective is a permanent record of Montana aviation.

Much of this material comes from the newspaper files of our State Historical Library, considered by historians to be one of the best—not only in the west, but in the country. All files and documentation remain with the Montana Historical Society, Helena. They will gladly answer questions posed by the reading of this book; and hereafter will be in a better position to answer research questions than the author, who may be junketing and out of reach.

Able assistance has been given by the industry and by Michael Kennedy, our state historian who assisted in planning and editing, and his staff; by his librarian, Miss Mary Dempsey; and her assistant, Mrs. Harriet Meloy, all of the Montana Historical Society.

Material contributions to the project were made by Patrick McLatchy, our research historian, and by Mrs. Donna Mix, my secretary.

In addition to the number of photographs from my own files, which are so credited, I am deeply indebted to the following persons for the important photographs, many of them extremely rare, which constitute the vital pictorial documentation of this book: Markle Brothers, Eva Cody, James Annin, George Lowry, George Croonenbergh, N. B. Mathews, Cliff Smithers, Historian Kelly Field, George Lowers, Nelson Story, Mrs. Ed Duebler, Mrs. Frank Bell, Sam Gilluly, Otto Timm, W. H. Minnerly, Blanche Ferguson, Ray Woods, Jack Milburn, Esther Vance, F. H. Christensen, Sue Follensby, Elmer Schneider, Mrs. Agnes Robinson, Perry Moore, Mrs. Fred Woodside, Corlie Dunster, Bob Westover, Grady Woodard, Neil Keim, Alma Stohr, Bob Johnson, Glen Bishop, Helen Lee, Marjorie Logan, C. B. McMahan, Thomas P. Mathews, Ben Harwood, Stan Cavill, Al Gillis, Mrs. Jack Hotaling, W. H. Hornby, Cecil Shupe, Les Jorud, George Franklin, Joe Engel, Harry Northey, Bob Henrickson, Carl Schirmer, Eddie Hefley, and Art Walker.

This has been a rewarding and interesting assignment, and we hope you like it.

— FRANK W. WILEY





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# Montana and the Sky

by FRANK W. WILEY

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You and I have, with envious pleasure, watched the effortless flight of the seagull or hawk as these birds soared along on the deflected breeze above a hill.

We should be able to do the same, and can, but only within the last century have we been able to do this, with sustained flight becoming possible with the advent of the internal combustion engine.

There are records of powered flights being made about the same time in many countries, the Wright Brothers being credited with the first flights in this country in December of 1903.

Our research has revealed that the first flight of one hour's duration in England was made by a Montana cowboy in 1909. The rapid advancement of flying is evident in the numerous exhibition flights made throughout this country and in Europe at that time, with rival exhibition teams of Wright and Curtiss appearing in Montana in various cities in 1910.<sup>(1)</sup>

The pattern of aviation development in Montana would be common to many other parts of our country, and to many other countries. It seems that our Montana terrain was an understandable stimulant to a desire for an improved form of locomotion, when our hardy pioneers often completed a day's travel with an ox team, still within sight of their morning point of departure.

We have an Indian legend, handed down from father to son in the Crow Indian tribe, which gives an account of the many adventures of a Crow hero, one "Plays With His Face."

It seems that this Crow Indian got himself cornered on a rock ledge overlooking the Yellowstone River, and from his precarious position, had all means of escape cut off by a band of Sioux warriors.<sup>(2)</sup>

Our friend, "Plays With His Face," putting his faith in, or taking a swig of, his strongest medicine, bailed out of his perilous perch and, using his blanket as a parachute, landed unhurt in the Yellowstone River below, escaping the Sioux war party and making a name for himself as being the first parachute jumper in the state of Montana.

This incident probably occurred between 1850 and 1870, and it is well known that the Sioux invaded the Crow hunting grounds after the time that Lewis and Clark explored our state, the Sioux having been driven west by other tribes who had superior weapons acquired by trade with the white man.

Evidence of the contamination of Montana with the organized society of civilization became apparent immediately following the Civil War. An annual event at the state capital was the state exposition of the Montana Agriculture, Mineral and Mechanical Association. This trade fair was held in Helena and became known as the State Fair. The program included a

stock show, agricultural exhibits, harness races and, in 1885, a daily flight by Professor Oscar Hunt in a gigantic balloon, descent from which was accomplished with a parachute and with the Professor going through an acrobatic curriculum on the trapeze on the way up and on the way down. Daily newspaper stories on the balloon ascensions are quoted as follows:

“At four o’clock the balloon began to expand under the influence of the hot air furnace and at 4:40 Prof. Hunt grabbed the trapeze attachment and yelled, ‘Let ’er go, everybody.’ Instantly the great balloon shot into the air and was greeted by plaudits of the thousands. The professor did some performance in midair at a distance of a thousand feet from the earth, and fully sustained his reputation as a successful aeronaut. This scene was pronounced a splendid one by everybody and worth the price of admission for the whole week.”<sup>(3)</sup>

“Between the first and second heats of the trotting races Prof. Hunt sailed skyward in his balloon. He didn’t stay up long, however. Smoke was pouring out of the top at a great rate and he brought it down as soon as possible, but none too soon, for it was discovered upon alighting that three considerable holes were burnt in the top. The balloon arose near the center of the enclosure and floated out over the Floral Hall beyond the fence. The professor will go up again on Saturday.”<sup>(4)</sup>

“The balloon went up in great style among the thundering plaudits of the great throng. At a distance of 500 feet above the earth the balloon seemed to stand still and the professor hung by his toes from the trapeze. It was a very successful performance and was highly enjoyed by everybody.”<sup>(5)</sup>

In August of 1913, a former Montana champion rodeo rider named Jake Ross reported to the press that his range partner, Sam Cody, had been killed while flying an airplane in England.<sup>(6)</sup>

Ross went on to tell that Cody formerly lived in the Castle Mountain area and that they had punched cows together before 1890 in the Crow Creek country near Radersburg. He said he saw Cody ride a bucking horse down the main and only street in Radersburg and nonchalantly throw a tin can at a dog as the horse was doing its best to throw him. He stated that Sam Cody was the best shot and the best rider and roper he had ever known.

A newspaper article in the *Fergus County Argus* dated October 30, 1922, covers a story written by a United States Forest Service supervisor, W. B. Willey, who tells of seeing a man-carrying kite or glider which had been built by a miner in the Castle Mountains about 1885.

Mr. Willey interviewed old timers who told about the glider being built by a miner who had a claim known as the “Flying Machine Mine” located above the town of Castle, and that the miner was known as “Sure-shot Bill.” In the ’80’s, the name of “Sureshot Bill” may have been associated with “Sureshot Annie Oakley,” a sensational young lady doing exhibition shooting with Buffalo Bill Cody’s circus at that time.\*

The meadow on the west slope of the Castle Mountains, where a mine known as the Flying Machine Mine is located, is an ideal location for the



BALLOON ASCENSIONS

ON TWO DAYS,



TRAPEZE PERFORMANCE  
IN MID AIR,

AT THE FAIR GROUNDS AUGUST 26TH AND 27TH, 1885.

IN MID AIR SAILS THE INTREPID AERONAUT.

Prof. Oscar Hunt, the Greatest Living Aeronautic Wonder of the Age, is now Sailing at a Dizzy Height over the City, Constantly Performing Astonishing Evolutions to the Delight of the Multitude.

*From the Fremont (O.) Democratic Messenger, July 3, 1884.*

Never before in the annals of history has there been such a combination of attractions as those which have been secured for special features of the grand Band Tournament and Fourth of July Carnival. Chief among these, and far in advance of all others, was the grand balloon ascension of Prof. Oscar Hunt. Mr. Jackson is to be complimented and is deserving of the thanks of the thousands of spectators present for having secured the services of the most daring and successful aeronaut that ever dangled in mid air. Words fail to describe, and the pen to picture, the amazement of the surging and excited throng, as the Professor, while at a dizzy height from *terra firma*, performed some of the most daring evolutions upon the frail looking trapeze that man ever witnessed. He is unquestionably the greatest and most successful living aeronaut of the day. Previous deeds of daring, which always succeed as a magnet in drawing and attracting lovers of the truly wonderful, pale into utter insignificance when contrasted with the thrilling and perilous feat of Prof. Hunt. The beauty, grandeur and success of his ascension at the fair grounds, Wednesday, spread like wild-fire throughout the surrounding country. Dispatches, upon "lightning wings," were sent to all parts of the State, and when Thursday morning arrived every public thoroughfare and every excursion and regular train, which entered the city, was literally thronged with humanity. No feature has added so greatly to the receipts of the Carnival, as the exploits of the aeronaut, Prof. Oscar Hunt. He made his first ascent in an aerial monster, when but eleven years of age, and his experience in that line has been a continuation of brilliant success. He has thrice circumnavigated the globe, giving exhibitions of his wonderful and awe-inspiring feats. Every fair association or public gathering, where a magnetizing attraction is desired, should not fail to institute a correspondence with the professor. Money invested in no other attraction will pay as large a dividend as that expended in securing the services of the King of Aeronauts. Just as we go to press (Thursday afternoon) Prof. Hunt is making his second trip to the clouds. Thirty thousand people are rending the air with cheer after cheer, and all the bands present are enlivening the scene with the soul-stirring strains of a patriotic air. It is now rising gracefully, the outline of the bold aeronautic engineer standing out in bold relief against the background of an azure sky. What is more exciting and novel, more pretty and artistic? This daring air navigator is of national repute and he is beyond doubt the most noted and successful aeronaut of the present age.

*Professor Hunt and his exhibition balloon.*

State Historical Society

launching of a kite or glider, and the prevailing westerly wind there is ideal for soaring or kite flying.

Supervisor Willey describes the flying machine, which he saw lying near an old cabin, as being constructed with a fuselage or body made from a lodgepole pine about forty feet long, with a single wing and a seat for the pilot in a sling underneath.

I have interviewed old timers in the Castle Mountains who have seen the machine. These people included Alan Berg of Lennep and Frank Roglnie of Martinsdale, who saw the glider or kite located in the timber near the Flying Machine Mine in 1914. An old miner named Tommy Short, who lived in White Sulphur Springs, described the machine to me as being a big kite made with a framework of willows covered with cloth. All three men described the man-carrying kite in detail, advising that the Flying Machine Mine was a claim about four miles above the town of Castle.<sup>(7)</sup>

While attending a meeting of the Northwest Aviation Council in Edmonton, Alberta, in 1963, I spent an enjoyable evening with a former English pilot, Jimmy Bell. Bell is the retired manager of the Edmonton Municipal Airport. He and Stan McMillan, a Canadian bush pilot, and myself, were reminiscing on our flying experiences, with Jimmy's flying pre-dating Stan's and mine by several years. At this time Jimmy told us that his interest in flying originated through his acquaintance in England with a pilot and showman named Samuel Cody, whom he thought may have been related to Buffalo Bill Cody.

Jimmy Bell was a pilot in 1914 in World War I, flying pusher airplanes on night bombing missions when the bombs were tossed over the side by hand. After World War I he came to Edmonton where he engaged in commercial flying and where he retired in 1962. Jimmy and his wife, Susie, have a wide acquaintance with aviation people on both sides of the border.

In a later interview Bell told me that at the turn of the century Sam Cody was the lead feature in a wild west stage show in England giving performances at theatres throughout the industrial areas. Like that illustrious showman, Buffalo Bill Cody, he traveled under the name of "Colonel Cody" and dressed in western attire, as did all hands in his show. Cody wore his hair long, a beaded, fringed jacket, and a big hat. The act included trick roping, riding and shooting and a cowboy band. The show expanded into an outdoor rodeo or circus performance, which included Indians, a medicine man, and a scientific exhibition of kite flying. The kite act included a man-carrying kite in which, Bell stated, the military people became interested, with the thought of using the kite to replace the bulky balloons used in that day for observation posts in artillery spotting.<sup>(8)</sup>

Jimmy Bell went on to relate how in 1904 when he was a small boy, Cody made him a box kite with wings which he and a companion flew with much delight. He stated that he did not see Cody again until 1909, at which time Bell attended an air meet in Dorchester, England, a few months after the French pilot, Bleriot, had won a purse of 1,000 pounds given by the *London Daily Mail* newspaper for being the first man to fly across the English Channel by means of a powered airplane. He said that this first





*DH2 Scout pusher, powered with Gnome engine. This aircraft is of the type flown by Jimmy Bell in World War I.*

Markle Brothers

flight by an airplane across the English Channel breached the island security of England and was a major stimulus to overcoming a marked lethargy in aviation interest by the British people.

Bell stated that contestants at this air meet included an Englishman, Captain Maitland, with a French airplane named "Les Voisin," and Colonel Cody with his airplane, "Les Cathedral," so named because of the inverse dihedral, or drooping wingtips.

It seems that the previous year, 1908, Cody had been awarded the contract to build the first airplane for the British army. This award was reluctantly made to Cody who competed with English pilots, and in a demonstration his airplane was the only one to meet the requirements stipulated by the British army.<sup>(1)</sup>

Cody built his airplanes at Farnborough, which at that time was, and still is, the research center for the British Army Engineers, and where he tied up his "Les Cathedral" to the "Cody Tree" for the thrust power check.

I wrote to the British army to make inquiry of any material or documented information on the activities of Samuel Cody, and was informed that Cody was the first man to fly an airplane for the army, and that his daughter-in-law, Mrs. Vivian Cody, still lived in Aldershot, England. The army historian advised that my letter was being forwarded to her for reply.<sup>(9)</sup>

A letter from Mrs. Vivian Cody stated that she had many documents, pictures and trophies, and a diary of her father-in-law's, and that she would be glad to help in any way she could on the Montana aviation history project.

Information on Samuel Cody, together with documents and pictures, was acquired by the Montana Historical Society through the courtesy of Mrs. Cody and Dr. Amos Little of Helena, Montana, who visited her in England in 1964.

A study of the activities of this astonishing cowboy pilot reveals that he had acquired many qualities from his frontier environment that were so essential to his success in pioneer flying. The type of life that Cody lived as a frontiersman frequently required that an immediate and correct decision be made and with a realization that a mistake was a life or death matter. These experiences stimulated his ability to plan ahead, his timing, and his coordination, all qualities so important to success in early aviation.

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# Samuel F. Cody

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Samuel Cody was born in Birdville, Texas, on March 6, 1861. His grandfather had migrated to this country from County Antrim in the north of Ireland, and had located in Texas where he ranched and farmed. Cody's father continued ranching and was a Civil War veteran.<sup>(1)</sup>

Cody as a boy was subjected to the rigorous times experienced by pioneers in the frontier country of Texas. In his diary he tells of his experiences, in which the Cody ranch was burned by raiding Indians, with Cody as a teenager hiding and then making his way to Fort Worth with the impression that his parents had been killed. His parents were rescued by neighbors, and in turn assumed that Samuel had been taken away by the Indians.<sup>(1)</sup>

The Cody ranch in Texas, like many ranches, had a Chinese cook who was both ranch and roundup cook. This Chinaman took a liking to Sam Cody and made kites for him when he was a small boy, in the process teaching him to build kites and instructing him in Chinese kite lore.

Sam well knew that the Orientals were experts in designing kites, and they attached great importance to kite-flying, having set aside the ninth day of the ninth month of the Chinese year for the dedication of kite-flying. The Chinese history recorded that a Korean general named Gay Han Sing used a kite before the birth of Christ to carry a line across a canyon for the installation of a rope bridge in a military operation. This recorded interest in kites by Cody as a small boy is quite significant.

Cody at an early age had shown an aptitude for riding and shooting, and before the Indian attack had been the horse wrangler for the ranch. His ability as a cowman was recognized by a stockman in the Fort Worth area, and at the age of nineteen, Cody was selected to be the trail boss for a herd being trailed north to Montana in 1880.<sup>(1)</sup>

Cody, with his Texas trail herd, departed from Wheeler County, Texas. His destination was Custer County, Montana. This Texas trail herd included a crew of 10 cowboys, a cook, some 70 horses, and 3275 head of cattle. Sam Cody delivered this herd to Montana after a journey of 102 days, covering 1,300 miles and losing only 74 head of cattle and one horse on the journey.

The Cody crew lived off the land as they went along, and they had many hazardous and trying experiences. Cody related in his diary that he was present when some cowboys shot up a town along the Platte River. He started a hasty departure from the scene but was wounded by a drunken cowboy who shot him in the hip. After receiving first aid by removal of a .45 slug and a generous application of carbolic acid in the affected area, he returned to blackjack his assailant with a sack of bolts which he picked up along the railroad track being constructed through the town.

Sam Cody went on from Montana to the Klondike where he didn't have





Col. S. F. Cody and model of his man-carrying kite, Aldershot, England. Fellow of the Royal Meteorological Society.  
Eva Cody



much success as a gold miner. When his claim partner died, he returned to Montana to later ride the range with his friend, Jake Ross, and build a man-carrying kite which he flew from a meadow near the site of his mining claim in the Castle Mountains.

Sam Cody left Montana before 1890 to join Forpaugh's Circus as a marksman and exhibition rider, and he attained such public success that he decided to operate his own show at the first opportunity.<sup>(1)</sup>

This opportunity developed following a trip he made to Europe with a shipment of blooded horses, at which time he met a horse buyer who purchased horses for the King of England. The horse buyer's name was John Davis, and he had a daughter who was an exceptional woman, being an excellent rider and a champion shot with both rifle and pistol.

Cody married this young lady and they teamed up to go into show business in England and Europe. His wife bore him three sons, Leon, Vivian and Frank. The Cody family continued in show business with the boys, like their illustrious parents, becoming expert horsemen and marksmen.

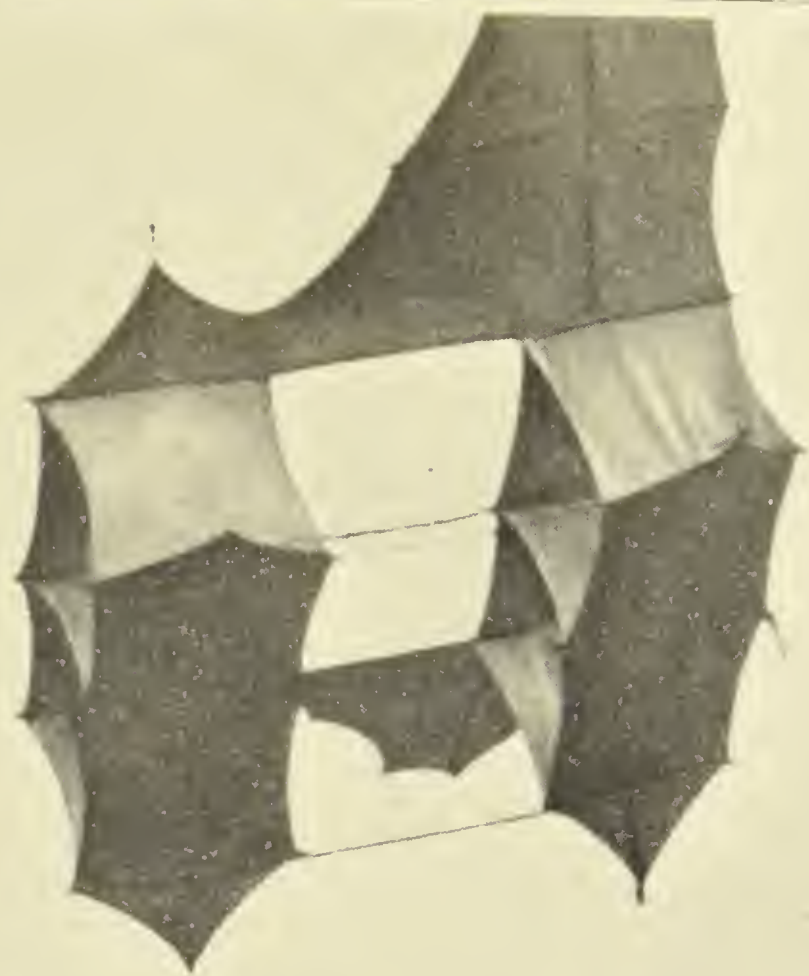
The Codys toured Europe with a string of racehorses and arrangements were made for various contests which, in Paris, included a race between Cody and a champion European cyclist named Terron, who had recently established a record by riding a bicycle from St. Petersburg to Paris. The French were well pleased with the race between the bicycle and the horse, which Cody, incidentally, won. Cody continued this type of performance in various European countries with the innovation of chariot races while in Rome. By 1894 Cody with his show had acquired a string of blooded horses and full-blooded Indians, and won 51 out of 53 races while touring Germany.<sup>(1)</sup>

An amusing story of an experience of the Cody family is related, in which, while camping in Germany's Black Forest, Cody could not resist shooting one of the royal stags. The family was quite apprehensive, as the penalty for shooting a stag was beheading. Cody, realizing that the royal game wardens with bloodhounds would soon be on his trail, covered the evidence by liberally sprinkling horse liniment around the camp and covering up the staked-out deerhide with a blanket, on which the family were having their picnic dinner at the time they were visited by the royal game wardens. It is evident that Cody's resourcefulness would get him by even in Montana today.

Another episode in the family experiences occurred on the Mediterranean island of Malta, at which time Sam Cody, his wife, and his son Vivian were riding down a hill on a three-passenger tandem bicycle. It seems that the boy was on the rear seat, and when the chain broke, the youngster was unable to hold back the loaded bicycle with his pedals, resulting in a run-away down the hill and the Codys winding up through the front window of a store at the bottom and with nobody hurt.

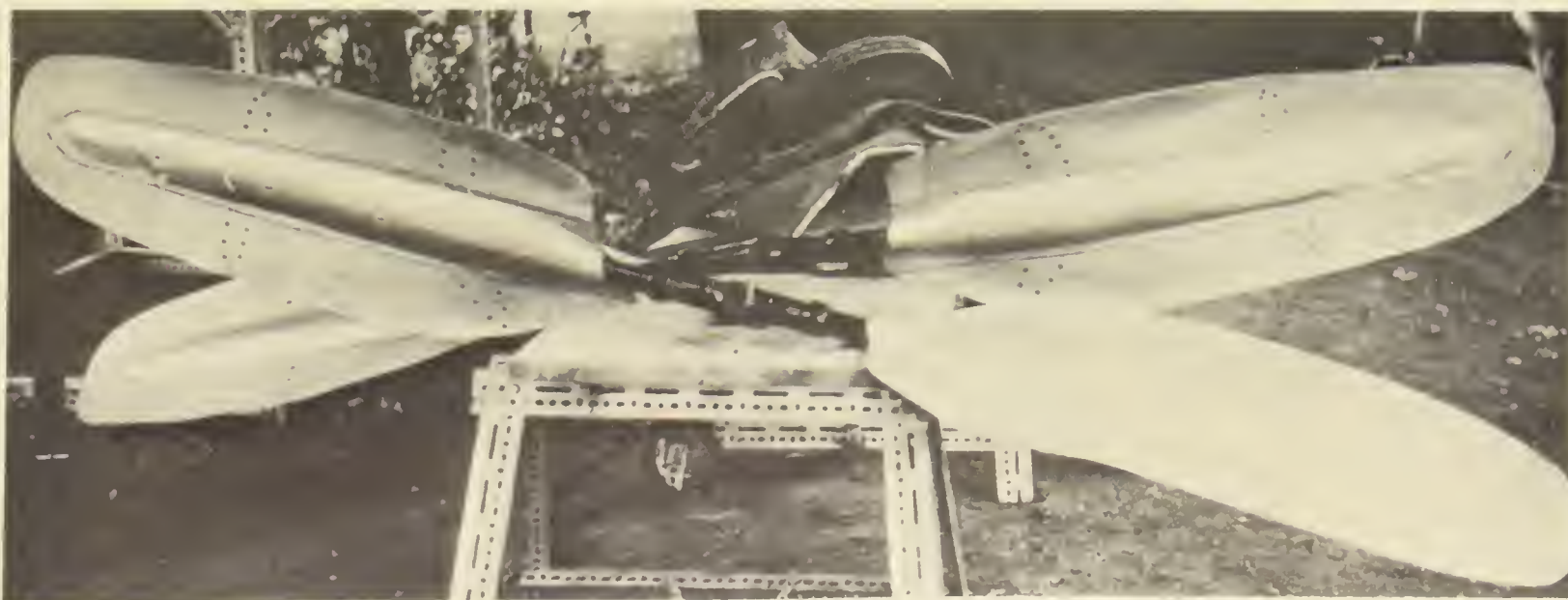
The versatility shown by Cody is most certainly astounding, as evidenced in his subsequent activities.

Returning to England he developed an automatic rifle in which the cartridges were fed by a fabric belt, the gun being fired by a trigger on the



*Mrs. Samuel Cody, suspended below Cody kite.*

Eva Cody



*Cody adjustable-pitch propellers at Aldershot, England.*

Eva Cody



forward part of the stock and actuated by the left hand. Cody again went to Germany where he built the gun and later demonstrated it to the British army with his typical showmanship, in which he rode a galloping horse past three silhouette targets which were suddenly held up from behind a bunker, with Cody riddling the head and shoulders of each silhouette as he rode by at full speed. With a very typical military evaluation, the army attributed the efficiency of this weapon to Cody's fantastic skill as a marksman, and debated whether or not to employ him as a weapons instructor, rather than considering the merits of paying him a royalty for the automatic rifle.<sup>(1,10)</sup>

Cody continued in show business, perfecting Wild West melodramas along the lines of Little Eva crossing the ice in *Uncle Tom's Cabin*. These melodramas included, *The Klondike Nugget*, *The Indian Bride*, *Calamity Jane*, and *Nevada*, with plots in which Cody carried the heroine, his wife, across a burning bridge, rescuing her from a situation worse than death, in which she had been tied by the villain to a keg of powder with a lighted fuse. He very nearly had himself lynched, and finally eliminated the villain during a ferocious knife duel which involved a redskin chief, all of which was climaxed by thunderous applause from the audience.

The Cody show branched out into exhibition kite flying and competed for public attention with a celebrated French balloonist, one M. Gaudron, who made a nonstop balloon voyage from England to Nova Alexandrovsk, Russia (a distance of 1700 miles) with two passengers, Maitland and Turner.

The Cody experiments with man-carrying kites would have been terminated on one of his first flights, except that he was fortunate enough to land in a clump of trees, then being rescued from the higher branches by spectators. He did perfect a very practical man-carrying kite with improved control, by warping the trailing edge of the kite wings. Cody patented his wing-warping kite design in 1901, and this feature was also incorporated in the patents which were applied for by the Wright brothers in 1903 when they built their first successful powered airplane which made an initial flight of 852 feet on the seventeenth of December of that year.

An English publication, *Pearson's Magazine* for July, 1903, carried an article written by Sam Cody, quoted as follows:

"I have invented an aerial machine which, although not perfected, has many successful attributes. I do not wish to assert that I have produced a flying machine in the full sense of the term, but I must confess that I have ambitions in that direction. I hope, at no distant date, to play an important part in the complete 'conquest of the air.'"

The article continues, "My invention I have called the 'Cody Airplane.' One of the main objects aimed at in the construction of the airplane is utility for reconnaissance purposes during any weather, day or nite, in time of war both on land or sea.

"In its present stage it has proved quite practical in its uses as a carrier and support for wireless telegraph apparatus, taking photographs at any given altitude, man-lifting, signalling, and many other uses referred to later on. This I have flown in winds of from seven to eight miles an hour, up to 58 miles an hour. This is quite a frisky breeze, rarely met with in England, but





*Painting of British cruiser pulling Cody war kite, 1903.*

Eva Cody

often happening in America where it tears roofs from houses and uproots trees. My earliest recollections of kite flying date from 1864 when I was three years old, when my father, returning somewhat the worse for wear during the Civil War, called the War of Secession, gave me my first sight of a kite in the air after a thieving raid on his cattle by redskins."<sup>(1)</sup>

In June of 1903 Cody competed at Worthing Downs, Sussex, in the International Kite Trials, in which he won second place. The winner was C. Brogdon, whose kite attained an altitude of 1,817 feet with a six-tiered design. In 1901 Cody was made a Fellow of the Royal Meteorological Society for sending meteorological recording instruments up to a height of over 14,000 feet by means of a kite.

Sam Cody in his writings stated that his interest in meteorology was first initiated by his knowledge of the ability of the Sioux tribe of redskins to forecast weather, good and bad. He stated that the Indians used a sacred cave called the Cave of the Winds to forecast the weather. This cave had a very narrow entrance — only about a foot in diameter — and the superstitious Indians imagined it to be a gateway to their happy hunting grounds, whither their souls departed. They also believed that the life-sustaining buffalo originated there.

An Indian had discovered that this cave could be used as a weather barometer, as whenever the atmospheric pressure rose it forced air into the cave, and when the pressure fell, the air whistled out of the aperture. By placing his eye or hand over the hole, the Indian found that he could at once tell whether to stay in his wigwam or go hunting. This was Cody's first insight into meteorology, which became a study useful to him in later years.

Sam Cody by 1903 had progressed sufficiently in his kite flying developments to attract the attention of the British Navy. He was commissioned by the Navy to demonstrate his kites at Whale Island, Portsmouth, and again referring to *Pearson's Magazine* of July 1903, it is related that Cody flew his kite equipment before representatives of the Admiralty. In a series of demonstrations his son, Vivian, ascended with a kite to 200 feet. He was then followed by Sam Cody who went up to 400 feet, and then another son, Leon, went up to 800 feet and took pictures of the warships in the harbor with a camera.

The equipment used included a battery of six pilot kites which took a cable up to a height of several hundred feet above the man-lifting kite. The man-lifting kite traveled on pulleys and could be anchored along the cable at any point by a brake. After the demonstrations the admirals and officers flew the kites and were deeply impressed by their utility for gunnery observations and for naval purposes.

These trials were successful to a point, but were ended by an accident: Sam Cody was being towed by a cruiser at a height of about 800 feet, when the cruiser made a turn of 90 degrees and then another turn of 90 degrees, taking up a course downwind. Any boy who has flown a kite would know what would happen if the man with the string suddenly started to run downwind. The six pilot kites executed abrupt gyrations, coming down into the water and bringing the man-carrying kite and Cody with them. Cody,



with recognizable horsemanship, dived out of the man-carrying kite about thirty feet above the water and swam around while the kite crashed. He then hung onto the kite, buoyed up by the bamboo struts, until he was picked up by a boat from the cruiser.

The result of this experiment was that the British Navy recommended to the Army that they continue in the development of kites for observation purposes, the Navy evidently not wanting anything further to do with the unconventional air experiments.

As a result of the Navy recommendations, Cody was hired by the War Office to carry on experiments at the balloon factory at Farnborough, Hants, where he and his two sons, Leon and Vivian, built and demonstrated kites to the British War Department. Cody's ingenuity and mechanical skill was immediately recognized by Colonel Templer, the commanding officer of the balloon school factory, and as a civilian employee at this experimental base, Cody further developed the warpings of the trailing edge of the wings for lateral control. He later fitted the kites with front elevators and a rudder.

In experiments at the balloon school, Cody became an expert balloon pilot and flew the first British dirigible which was powered with a 15 hp. engine of French design.

The kite experiments were continued, as it was learned that balloons and dirigibles could not be successfully flown in more than a twenty mile-per-hour wind. It was then that the efficiency of kites began to be recognized, as observation kites had been flown in winds as high as 50 miles per hour.

Another phase in the evolution of the Cody experiments included the carrying of a kite or glider to a height of several hundred feet by the use of a balloon, the glider was then cut loose and glided down to the ground. Cody's son, Vivian, met with a serious accident in the glider tests, in which a crash was caused by what was later recognized as a stall while the glider was descending from the balloon.

In a recount of these experiments, G. A. Broomfield, the author of the English book, *Pioneer of the Air*, related that Professor J. J. Montgomery of Santa Clara College, California, produced a glider which was piloted by a man named Maloney and was taken to a height of 4,000 feet by a balloon and then cut loose. It was reported that Maloney made actual loops with the glider and somersaults during the descent, landing safely afterwards. Vivian Cody also made several somersaults during his descent after stalling the glider, but they were not premeditated and were uncontrolled gyrations. Maloney died in an unusual manner on the 18th of July, 1905, when after cutting himself loose from a balloon, the main elevator control collapsed and the machine turned on its back, landing upside down. Maloney was unhurt, but died a few minutes later from heart failure.

Another innovation made by Cody in aviation design was an adjustable pitch propeller used on the first British dirigible balloon. This propeller included blades which were fastened to pipes or metal tubes, which were in turn clamped to the hub. The clamps could be loosened and the blades could be adjusted to any desired pitch. These propellers were the first adjustable pitch propellers ever used for air propulsion and later, with many innova-

tions, became the constant speed propellers used on conventional aircraft today.

The balloon factory at Farnborough turned out several dirigible balloons and Cody's son, Vivian, was engaged as the superintendent of the manufacture of the envelopes of these various airships. These first envelopes were made of "gold-beater's skin," which was fabricated from the intestines of animals. Some 200,000 head of cattle contributed to the material used in the first successful British airship, which was 122 feet long, 26 feet in diameter, and contained 55,000 cubic feet of hydrogen.

Sam Cody flew this dirigible balloon from the factory to London, where he circled St. Paul's Cathedral. An unexpected high wind, the forerunner of several days' storm, prevented the dirigible from returning to its base, and it was tied down in London. Later it was found in the following heavy rain that the gold-beater's skin absorbed moisture to the point where the gas bag had to be deflated and the balloon returned to the factory by ground transportation. This flight occurred in October of 1907, and it may have been fortunate that the British people at that time did not realize that within 10 years they would be hiding in their cellars from Zeppelin raids over England.

Cody was very conscious of the limitations of lighter-than-air vehicles, and he continued with his ideas of developing an airplane by powering a glider. This British balloon factory had only one engine, the 15 hp. French motor, which Cody had borrowed and with which he powered his first airplane. The development of this airplane was somewhat delayed in that the motor had to be used for experimental flights of the British dirigibles and was alternately taken out of the airplane and used in a dirigible.

Cody made experimental flights with his first airplane during April of 1908, and he made the first successful recorded flight in Great Britain on May 16, 1908. On the 29th of September Cody made a flight of 78 yards and on the 5th of October, 1908, he made a flight of 496 yards, attaining a height of fifty to sixty feet. This flight was terminated by a serious accident in which Cody and the airplane ended up in a bunch of trees. This airplane was later powered with a 50 hp. motor that had been acquired for use in flying the dirigibles. Cody made several innovations in the motor, in which he improved on both the ignition and carburetor, making many tests with direct injection of fuel into the engine and by the use of a carburetor.

Cody, being an eccentric individualist, was severely criticized both by the press and by his competitors, and competition was keen. A Mr. A. V. Roe had made successful flights with aircraft which were catapulted into the air, and then doing a prolonged glide with the use of power which was insufficient for sustaining flight.

Early recognized flights were made, with the "First British Subject to Fly in the British Isles" being J. T. C. Moore-Brabazon from Tara County, Meath, Eire. This flight was accomplished in December, 1908. A later flight at Laysdown by Brabazon in May, 1909, ended with a sheared cotter pin on a control column. Brabazon was seriously injured.

Cody had a serious crash on October 5, 1908, and after recovering from his injuries he redesigned the front elevators of his airplane and fitted the





*First British army airplane. Designed, built and flown by S. F. Cody in 1908. Note tapes on trailing edge of wing to study airflow.*

Eva Cody

trailing edge of the wings with tapes, with which he made a study of the airflow over the wing. This technique is used today for aerodynamic research on the airflow over the lifting surfaces of aircraft.

The criteria established by the British for recognized records in flying required that the pilot be a British subject, and that all of the components, including the engine, be of British design and manufacture. Up to this time all flights made in England had been with aircraft either manufactured in France or powered with French engines, and Cody was not a British subject. Cody, being a man of action, complied with these requirements by becoming a British subject with appropriate ceremony, in which he took down the Stars and Stripes from a flagpole on his hangar and hoisted the British flag. All of this was accompanied by the band from Farnborough playing *The Star-Spangled Banner* and the British anthem. The ceremony was attended by most of the local people with whom Cody was very popular, and particularly with the British enlisted men.

Another requirement established was that an airplane competing for a record must take off under its own power from a standing start, rather than being catapulted into the air by an auxiliary force such as a catapult, or down an incline. The first Cody airplane was of unusual design with the elevators in front and the pilot sitting behind the motor. Following the establishment of the competitive rules by the British government, Cody completely redesigned his airplane, placing the seat in front of the engine and using two synchronized front elevators, which acted both as elevators and lateral controls. Additional lateral control was obtained by balancers fitted to the rear outer strut, acting as ailerons.

The rudder was actuated by means of a steering wheel on a control column which in turn operated the elevators and ailerons. Cody also devel-

oped a hickory skid for use in place of a tail wheel. All of this lightened his machine considerably and he used an ordinary agricultural plow seat instead of the bucket seat used on previous machines. This seat was the subject of much ribald joking and merriment on the part of the press and his contemporaries. An interesting picture of one of Cody's airplanes shows four mowing machine seats. Yet Cody did break a world's record by being the first man to carry three passengers with him in a heavier-than-air machine!

A Colonel Capper had the distinction of being the first passenger to fly in Great Britain when he made a flight with Cody on August 13, 1909 for a distance of 1½ miles. In *The Aeronautical Journal* of October, 1906, Col. Capper had prophesied, "War airplanes will fly at never less than twenty, and up to one hundred, miles per hour. Nothing but the heaviest storms will stop them; they will be small and difficult to hit, and very difficult to damage." Col. Capper lived to see airplanes break the sound barrier.

Cody's competitors were bitter in their criticism of him and his eccentric original ideas in aircraft design. The press was also very critical of Cody because he did not conform to the recognized society standards of the day. Additional criticism was directed at him for his title of "Col. Cody," as it was maintained that he had no official rank.

The interest by the public in Cody's flying could not be ignored. This was climaxed following a record-breaking flight on September 8, 1909, at which time Cody remained in the air for one hour and six minutes over Aldershot. A special demonstration flight was attended by the King, who personally congratulated Cody and addressed him as "Colonel Cody." This recognition by the King of England stopped all further questions as to Cody's title, and the press had to grudgingly address him as such, recognizing that he was the first man to make a cross-country flight of over one hour.

A book, *Pioneer of the Air*, relates how Cody referred to the antipathy of certain reporters in the early stages of his flying and was quoted as saying, "All of my early 'hops' and 'glides' had been ridiculed and jeered at by the press, so I kept press clippings in two separate files, one for those who jeered and one for those who encouraged me." Cody went on to relate how, after he had made his record-breaking cross-country flight, he arranged for a press conference, at which time his secretary, Blanche Leroy, read several clippings to the group. To the embarrassment of one reporter, the secretary read a previous account he had given in which he had headlined the article, "*Cody's Farewell – God Save the Taxpayer: We could not love you, sir, so much, love we not money more! The War Office has parted with Mr. Cody and we publish above a photograph of his pathetic if somewhat undignified exit. It is hoped that the Authorities will now finance an Englishman's experiments.*" It is evident that Cody was not a diplomat, but he most certainly was effective.

The *Royal Aeronautical Society of England* in August, 1909, awarded the silver medal of the society to Samuel F. Cody for his services to aeronautics. The following letter was sent to Col. Cody:

"Dear Sir,

"I am directed by the Council to inform you that at the meeting



held on Wednesday, August 18, 1909, it was decided to award the Silver Medal of the Society to S. F. Cody, Esq., for his services to Aeronautics.

"I am also directed by the Council to say how much they appreciate the hard work you have done in connection with Aeronautics, and to congratulate you on your recent successful flights.

"I am, Sir,

"Yours faithfully,

"J. D. FULLERTON, Col., R.E. (retired),

"Hon. Secretary

"Aug. 20th, 1909."

Another interesting observation on Cody's accomplishments occurred when he purchased a car in London and drove it from there to Aldershot without receiving a single driving lesson. Cody stated, "Aeronautics is not the first strange subject I have taken up in my life. I was a cowboy—a crude Texas cowboy—I followed the cattle and horses and my home was on a horse's back, and always was, until I bought a motor car and I have rarely ridden a horse since."

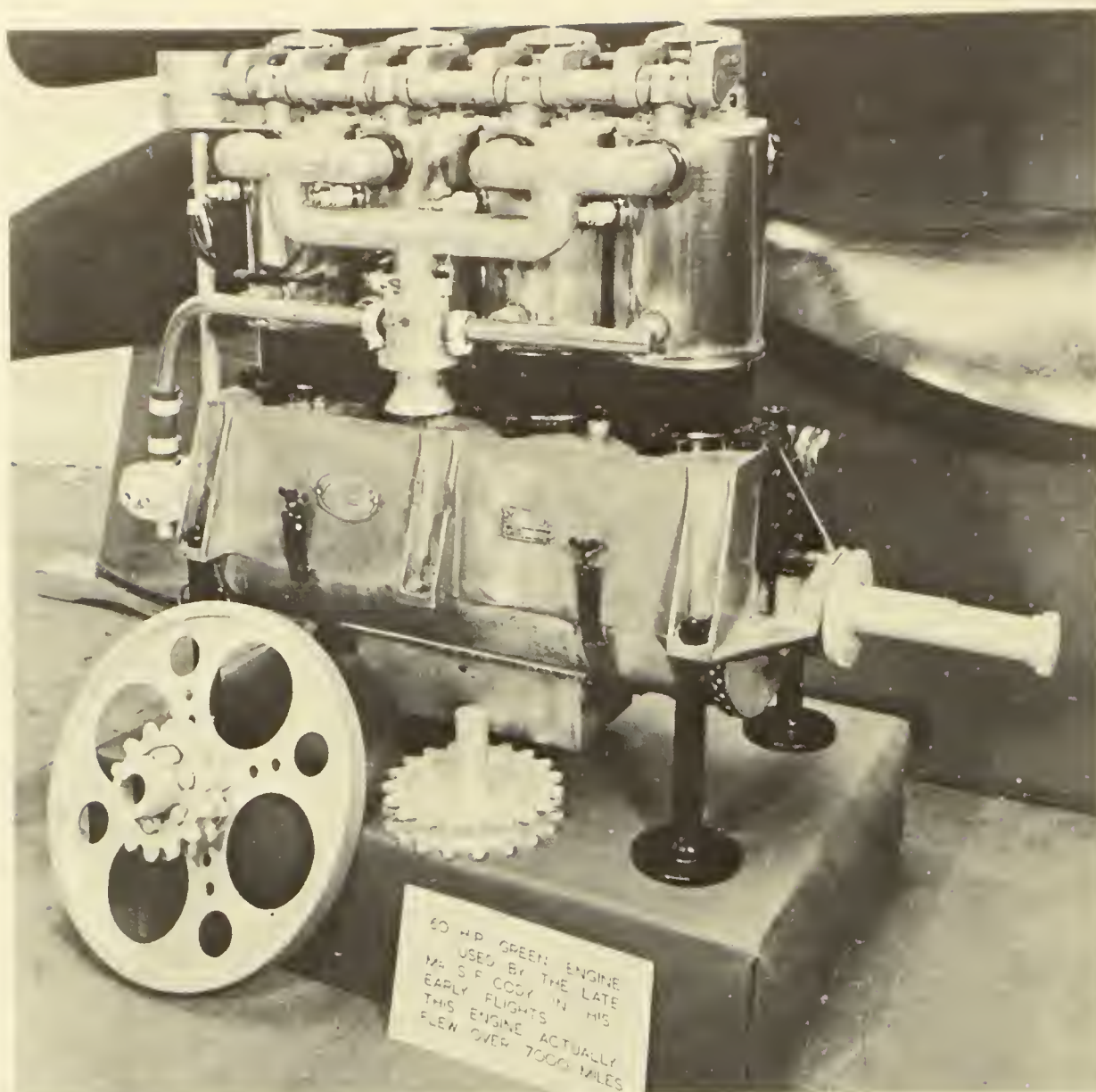
The British pilot, Moore-Brabazon, won the first *Daily Mail* prize of 1,000 pounds for a circular course flight by a British subject in an all-British machine. This prize-winning flight was made on October 30, 1909, and this same English pilot followed this up by winning the Michelin Trophy and a prize of 500 pounds in a flight of nineteen miles on March 1, 1910.

This recognized flight was followed by Cody's endeavoring to qualify for competition in the many British prizes now being offered by prominent individualists, by the press, and by the military. England had finally awakened to the value of aviation development in assuring the security of the British Isles. The development of the British aviation industry was stimulated by the interest of the public in developing competition between the increasing number of English pilots.

Cody had recognized that the English Green 60 hp., four cylinder engine was a dependable power plant. He built an airplane which was originally designed for a 12-cylinder Phoenix engine, and then he decided to use two 60 hp. Green engines driving one propeller by means of chain drives. The Green engine later won a prize for the best engine when tested by the army aircraft factory at Farnborough, at which time the motor turned out 66 hp. at 1,150 revolutions per minute.

In flight tests of his new airplane, Cody found that he could not synchronize the two four-cylinder Green engines to drive one propeller, as the chains continually broke. He therefore had to be satisfied with using only one engine and he used various means of increasing the power output, which included the boring of holes in the cylinder bases to better scavenge the exhaust gases.

Another Cody innovation was the installation of an eight-gallon auxiliary oil tank, which by gravity fed oil to the crankcase at the same rate that the oil was consumed by the motor. These innovations in this Cody airplane, which was known as the "Centenary," resulted in a ship of increased



4-cylinder 'Green' engine. Built in England and used in Cody airplane. Note flywheel, sprockets and chain which drove two propellers.

Eva Cody

performance in which Cody made a non-stop flight of four hours 47 minutes, covering the distance of 186 miles, thereby winning the first great prize in the competition for the Michelin purse.<sup>(11)</sup>

In February of 1911 Cody took up three passengers at once and this accomplishment was an example of things to come, and also of the multi-engine, multi-passenger aircraft of the future.

Cody's experiments in trying to use two engines on one propeller are interesting, and it may be noted that his first airplane had one engine driving two propellers. One cannot help but wonder why he did not happen to devise a combination in which he could have used two engines, each driving a separate propeller.

Soon after winning the Michelin prize, Cody designed and started to build a faster airplane to compete for the second *Daily Mail* prize of 10,000 pounds for a 1,000 mile race around Britain. This airplane was stored away and not flown, because an engine of sufficient power was not available. It was later flown in 1912 with a 120 hp. engine.

British pilots competed in various aviation contests for substantial prizes. The first English pilot to be killed in these competitions was the Honorable C. S. Rolls of the famous Rolls-Royce firm. Rolls was killed while flying a Wright bi-plane, and testing an experimental elevator, resulting in





*Samuel Cody at control wheel of his 120 hp. airplane.*

Eva Cody

the failure of the tail. Cody was the first person to the scene of the crash and commented to his associate, G. A. Broomfield, on his sorrow at the death of his friend, Rolls.

The British military in 1911, under public pressure, began to take an active interest in aviation. It was late in 1912 before Cody received the 5,000 pounds which the Army and Navy owed him for his great work in the man-lifting kites, and he received this money only after long-delayed legal action in which a substantial part of his payments was expended in legal fees.

The British government purchased two French airships which were flown to Farnborough from France, and Cody related an amusing incident in which one of these dirigibles was being pushed into a hangar that was obviously too small to accommodate the machine. A British general stepped forward and gave orders for the ground crew to push harder, whereupon the envelope on the dirigible crumpled, wrecking the machine so badly that it never flew again.

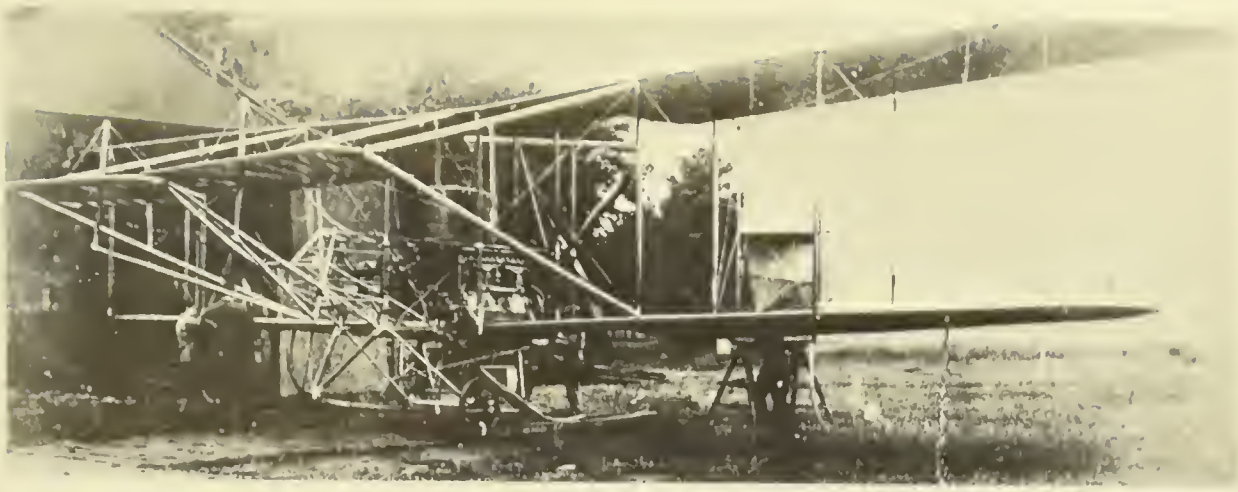
In 1911 there were over 50 pilots in England, and Cody was faced with some real competition. In March of 1911, at an exhibition at Olympia, Cody was congratulated by King George V for his success in winning the Michelin cup. Cody gave command flights for His Majesty on June 5 and 6 at Laffan's Plain. King George once more congratulated him, and this encouragement from the King resulted in his additional efforts in flying competition.

There were nine British aircraft competing in a race around Great Britain scheduled for July 21, 1911. These aircraft competed with twelve foreign planes in a one-thousand mile race. Cody was handicapped by mechanical difficulties, including a leaky gas tank and radiator trouble, together with characteristic English fog and bad weather. *The Airplane*, a British aviation publication, stated that Cody made the finest performance of the race, in an airplane he had built himself without any financial assistance, and in the face of public ridicule and official opposition. This aviation publication praised Cody highly for his magnificent flying skill and courage. It also stated, "Though born in America, his father was a North of Ireland man, and Ireland may be well proud of him." He won a prize of slightly over 167 pounds. He flew some 2,000 miles, detouring around weather in the race, and was one of the few competitors who finished.

The Royal Flying Corps, with a Navy and military wing, was formed in April of 1912, following which the War Office advertised for military trials. The official list of entries published on July 2, 1912, included 32 names. Cody entered two machines, flying one himself and a Lt. Harvey-Kelly the other. In a test flight at Laffan's Plain, Sam Cody had a motor failure and was unfortunate enough to hit a cow on landing, demolishing both the cow and the airplane. With the military trials scheduled to start on August 2, Cody was forced to bring out a 1911 airplane used in the circuit of Britain, in which he installed the 120 hp. motor from the wrecked airplane that had hit the cow. The British military requirements for the competition were quite interesting, and were as follows:<sup>(11)</sup>

- Each machine must carry one passenger and be capable of being transported by road.





*Cody 120 hp. airplane, which won the military trials in August, 1912, at Salisbury Plain, England.*

Eva Cody

- It must be completely assembled and able to ascend to a height of 1,000 feet in less than five minutes.
- It must fly at a mean speed of 55 miles per hour.<sup>(12)</sup>
- The machine must carry 4½ hours' fuel, reach a height of 4,500 feet, and stay up for three hours, one hour of which must be above 1,500 feet.
- It must be able to carry a live load of 350 pounds.<sup>(12)</sup>
- Each machine must make two flights in opposite directions, demonstrating the average maximum and minimum speed.
- The winning machine must alight in a plowed field, must steer easily on the ground, be able to fly in a high wind, and must have a good field of vision from the pilot's seat.

Additional points were given for the shortest run on landing. It was required that the engine could be started from the pilot's seat and must idle on the ground without moving the machine forward. Each machine had to be fitted with dual controls and have adequate protection of the occupants from the wind.

One of the competing machines was a Deperdussin monoplane. If you were associated with aviation during and immediately following World War I, I am sure you will remember the wheel control of some of our aircraft flown in the 'twenties, which was known as a Deperdussin control. This wheel was used to operate the ailerons from the wheel on the control column rather than the conventional control stick. The "Dep" control is generally used on aircraft today in this country rather than the now rarely seen control stick.

The highlight in Cody's aviation career was the winning of the military trials held on Salisbury Plains in August of 1912, at which time he won the first prize which was open to any aircraft made in any country. He also won the first prize open to British subjects for airplanes manufactured in the United Kingdom. People in general were now glad to address him by the heretofore questionable title of "Colonel Cody."

Cody went on to win additional competitive events, following which, in 1912, he was presented a silver medal by the Shell-Mex Petroleum Company. An additional prize for having completed 7,000 miles of flying was presented to Cody by the distributors of Shell Motor Spirit.

Cody's last competition was preparing for a 5,000 pound prize offered by Lord Northcliffe for a waterplane flight around Great Britain. Cody designed a larger airplane for this race, a craft with a sixty-foot wing spread and capable of being flown on floats for taking off and landing on water. This airplane was constructed with one central float and two smaller floats, and Lord Northcliffe showed additional foresight in offering a further 10,000 pound prize for the first flight across the Atlantic. Cody was keen to try for this second prize, and he decided to design a 400 hp. engine to power a transatlantic airplane.

Cody commissioned a French firm to build this motor and made a deposit of 600 pounds on the engine. The airplane he designed was a double-deck monoplane with the engine to be placed on the lower deck, driving a four-blade tractor propeller by chain drive. The cabin of this airplane had berths for the relief pilot and navigator. The wing was to be a 120-foot span, and this transatlantic airplane was to have two main floats, one under each wing.

The Cody airplane designed for the water race around Britain proved to be a very efficient machine with unusual stability. Cody flew the airplane to Calshot, which was the starting point of this race.

Samuel Cody was killed near Cove Common with a passenger in this pusher type pontoon-equipped airplane. The aircraft was seen to break apart in the air while making an approach to a landing. The passenger was W. H. B. Evans, an Oxford University and Hampshire Cricket Captain. Later investigation revealed that the four-bladed propeller had disintegrated, cutting off the tail of the airplane.

The British aviation publication, *The Airplane*, published the following poem by J. Poulson, which fittingly describes the termination of the career of this Montana cowboy who built and flew the first airplane for the British army:

"CODY"

*"Crank of the crankiest, ridiculed, sneered at;  
Son of a boisterous, picturesque race.  
Butt for the ignorant, shoulder shrugged, jeered at;  
Flint-hard of purpose, smiling of face.  
Slogging along on the little-trod paths of life;  
Cowboy and trick-shot and airman in turn!  
Recklessly straining the quick-snapping lath of life,  
Eager its utmost resistance to learn.  
Honour him now, all ye dwarfs who belittled him!  
Now, 'tis writ large what in visions he read.  
Lay a white wreath where your ridicule riddled him,  
Honour him now, he's successful and — dead."*

Montana perhaps can lay very little claim to any credit for the accomplishments of this Montana miner and cowboy, other than to have provided a rugged environment which stimulated and developed the original thinking and tenacity which Cody showed in his fantastic career in aviation.



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# T. C. Benbow

## (THE MONTANA METEOR)

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An aviation development was initiated in Montana before 1900 by T. C. Benbow, an Absarokee farmer and rancher who exhibited his model of a dirigible balloon in a Red Lodge saloon window. This flying machine was powered by an electric motor and created a lot of interest on the part of the people in the Red Lodge and Columbus area.

In 1902, Benbow formed a corporation to raise money to finance the construction of a man-carrying, semi-rigid dirigible balloon. The corporation was known as the American Aerial Navigation Company. Officials of this first flying company in Montana included George Pearson of Red Lodge; and T. C. Benbow, Pat Lavalley and S. T. Simons of Columbus, Montana.<sup>(1)</sup>

Within a year \$30,000 had been pledged and \$5,000 had been paid in. This was enough to give Benbow a start, and he went east to Frankfort, New York, where he presented his ideas on his flying machine to Professor Carl Myers, who was recognized as the leading authority in this country on lighter than air construction.

Professor Myers reviewed Benbow's plans and gave his endorsement to the balloon and the propulsion principle involved, following which drawings and plans were prepared and the dirigible balloon was built, with the first test flights being made in 1903. This balloon, which Benbow named "The Montana Meteor", was powered with a four-cylinder, air cooled engine, which in turn was cooled by an electric fan.

Benbow had incorporated a mechanical feature in the paddle wheels which propelled the aircraft, wherein the advancing blade of the paddle wheel collapsed and the retreating blade opened up to give a forward thrust to the machine. The same idea had been tried on steamboats and is used today in the action of the blades on a helicopter, in which the retreating blade has a greater angle of attack.

The backers of the Benbow machine were encouraged in further supporting the American Aerial Navigation Company by the announcement in national publications of substantial prizes to be offered at the 1904 St. Louis International World's Exposition, at which time and place the first air meet in the country was to be held.

The year 1904 was a presidential election year, and the democratic national convention was scheduled to be held in St. Louis at the time of the fair. William Jennings Bryan was a candidate for the presidential nomination, and again demanded a sixteen-to-one free coinage of silver and gold. He was appointed chairman of the advisory committee on aviation, created to establish and approve the final rules for the aeronautical contests. Three other members of the committee were Calvin Woods, dean of engineering at Washington University, St. Louis; C. D. Mosher, yacht designer of New

York; and Alberto Santos-DuMont of Paris. Any ruled decisions by this group were binding on the International Jury for the grand prize of \$100,000, with additional prizes being offered in the amount of \$100,000. The Jury included the General Commissioner of Brazil; the General Commissioner of England; and aeronaut Octave Chanute, an aviation authority of that time from Chicago. Rules for the air meet were published in *Harper's Weekly* of April 30, 1904, and stated:<sup>(2)</sup>

"For the airship races a grand prize of \$100,000 has been offered. A minimum speed of twenty miles an hour for three times around a ten-mile course is required, and the prize goes to the person who can make the greatest speed above that."

Aerial events were to be held for a period of three months, starting the first of June, 1904, and another event included \$100,000 in prizes for a flight from St. Louis to Washington, D. C.

Professor Myers was mentioned as demonstrating his Sky Cycle at the Exposition, and it is interesting to note in later research that Cromwell Dixon, who flew at the Montana State Fair in 1911, played a violin, accompanying his sister who sang at the St. Louis International World's Exposition, and he shortly thereafter started his flying career on a homemade sky cycle, which he built, for which his mother and sister helped him fabricate the balloon.<sup>(3)</sup>

"Chalk" Benbow was one of some half-dozen contenders for the prize offered by the Exposition for the performance of flyable flying machines. His machine is graphically described in the following quotation from the Akron, Ohio, *Wingfoot Lighter Than Air Society Bulletin*, Vol. 11, No. 6:

"*The Benbow Airship*. An early arrival at the Fair was the airship invented by Thomas C. Benbow of Absarokee, Montana, in collaboration with H. J. Wells. It had been constructed at the Carl Myers Balloon Farm in New York state and operated there until its maneuverability was considered satisfactory. The envelope was of French silk covered with twelve coats of special varnish invented by Mr. Myers that kept the surface gas-tight; the ship was usually kept inflated with hydrogen.

"The Benbow airship consisted of a 'spindle-shaped' gas bag that was 74 feet long and about 21 feet in diameter. It had a capacity of 14,000 cubic feet and could lift 900 pounds. Beneath the center line of the bag, attached by cords, was a steel horizontal spar with a short section of bamboo aft to which was fastened the rudder post. Below the steel rod was a framework of aluminum suspended by steel rods and stiffened with piano wire. The car was divided into two compartments; the forward one carried a 4-cycle gasoline engine of about 10 hp. and the rear one was a wicker basket in which the aeronaut stood. The engine was cooled by an electric fan. Geared to the engine by a belt and pulley were two propellers composed of 4 six-foot blades, or wings, of canvas stretched on bicycle tubing and braced with piano wire. As these blades rotated, they opened and closed like the feathering paddle-wheel of a river steamer and impelled the envelope by their action. The operator controlled the ascent and descent and horizontal direction by cords attached to a rectangular rudder 8 by 5 feet made of





*Benbow airship, St. Louis World's Fair, 1904.*

James Annin



*T. C. Benbow and paddle-wheel propulsion unit for his airship.*

James Annin



*T. C. Benbow entangled with wires, St. Louis, 1904.*

James Annin

canvas on a bamboo frame.

"Benbow made two quite inconclusive official flights. The early one in September was reported to have poor performance on account of impure hydrogen gas. The second one was somewhat more successful, but was tethered, with aides holding the rope."

When the period of eligibility closed on September 1, only three airships were in the machine shed. Those included the Benbow machine, a machine owned by Marcellus McGary of Memphis, Missouri, and Carl E. Myers' Sky Cycle. The St. Louis papers talked of 81 to 94 entries, but these were not forthcoming. Other contestants arrived later, including a small machine from Los Angeles to be flown by A. L. Reynolds. This machine was 30 feet long and 14 feet in diameter.

The Fair closed on November 30, 1904, and as can be seen from the records, the aeronautical contests at this Louisiana Purchase Exposition were neither plentiful nor outstanding. The Fair management had generously allotted \$200,000 in prize money, but made the contests so severe that there were no contestants who could win. Small prizes were paid to four kite contestants and for two fake balloon races. This was nevertheless America's first air meet, and one in which a pioneer Montana aeronaut participated.

A comprehensive report of Benbow's flights at St. Louis was contained in various Montana newspapers of that time. One, a Montana AP dispatch of November 3, 1904, reads as follows:

"Floating gracefully in the air at an average height of 50 feet above the heads of several thousands of spectators, T. C. Benbow made a successful flight yesterday. The big cigar-shaped balloon with a burden of cabin, motor, machinery and operator remained aloft for 15 minutes during which time Benbow directed the prow of the ship in all directions of the compass, then slowly descended to the ground near the starting point." On November 22, 1904, the *St. Louis Post Dispatch* said:

"After remaining in the air at a height of over 2,000 feet for 45 minutes, a part of which time the machine was propelled by its own motor power, the Montana Metcor, operated by its inventor, T. C. Benbow, was brought safely to the ground three miles south of the Fair Grounds. Benbow said a leak developed in the gas line that made it impossible to return to the concourse landing in the face of a stiff wind, and the loss of power, when the motor died out, made it necessary to steer for landing in a safe place.

"This was the beginning of Benbow's bad luck. On his next trial, with the machine in perfect running order, and a reinforced motor for extra power, he had circled the concourse, directing the machine perfectly, when he decided to take the 15-mile test course. He ordered the guy lines cut and was raising up over the grounds, when an anchor snagged and the balloon was entangled in the wire walls of the enclosure, where the wind whipped the carriage mercilessly. The spectators expected him to be thrown out of the carriage at any minute, but he was equal to the emergency and coolly came down a rope to the ground, while the gas bag remained snagged hopelessly.



“The damage to the craft was considerable and Benbow did not have time to make another flight for the official entry, and the grand prize. The Baldwin ship with its more perfect construction and power only made two trial flights, on the second of which it broke its moorings and was lost in the darkness. It was recovered some 15 miles away but damaged beyond further competition, thus eliminating the last entry in the contest.

“But Benbow persisted, and again made plans to run the concourse as he had done before, for \$500 daily for a flight. Before the fair gates opened, he was starting on a flight, but was prevented from going up by the enforcement of the Jefferson guard, on the grounds that the flight could not be made until the gates were open to the public or until the fair crowd was big enough to warrant payment of the flight.

“This was the end of the Montana Meteor. The gas bag was deflated, and the motor and cab boxed up and shipped back to Red Lodge. Baldwin also got mad and moved out to where specifications were not so stringent and unfair. The ‘stalls’ were emptied of airships.

“In reading the many news releases, Benbow with his small ship, his persistence and simplicity of his craft, won a place in the hearts of the fair-goers, second only to Roy Knaubenshue who was the hero of the meet. After the guards had deterred him from one of his flights, one of the St. Louis dailies quipped:

*“Oh, don’t you remember the airship, Benbow;*

*“The airship that tickled the town.*

*“The airship that never once needed our smiles,*

*“And cared not a whit for your frown!”*

Benbow returned home from the St. Louis adventure short of finances but with an unquenchable interest in flying. He set about developing further resources in which he was successful when he located and developed the Stillwater and Rock Creek chrome mines. These were, for him, a money-making venture which in turn deflected his interest to this more substantial vocation.

It is evident that T. C. Benbow was a very diversified and accomplished person who is recognized as having contributed very materially to the development of the dirigible balloon which was successfully exploited by the Germans with their mighty Zeppelins used against the British with such devastating effects in World War I.

Other inventions by T. C. Benbow included an automobile wheel with coil spring spokes, and he also held patents on an automatic railroad coupling and an air brake.

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# Mrs. D. W. Owen

(RUBY DEVEAU)

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Mrs. D. W. Owen of Missoula, Montana, was an early day exhibition parachute jumper. Her accounts of parachute experiences give a rare insight into this early lighter than air activity.

She was born in Germany in 1877, came to this country at the age of four, and was orphaned at an early age. As a young lady she was a member of a vaudeville show troop stranded in Memphis, Tennessee. Here she saw an exhibition parachute jump from a balloon and made application for employment, then and there making her first parachute jump in 1892 at 15 years of age.

Mrs. Owen, then Miss Ruby Deveau, followed this up-and-down career for three years, making 175 jumps and doing exhibition performances in many parts of the country. She had many close calls with the muslin balloons and parachutes of that time.

Miss Deveau was billed as the "Queen of the Clouds." The following quotation from the *Nebraska State Journal*, of Lincoln, Nebraska, gives a graphic account of balloon exhibitions of that era:

"About 3:00 the tenders brought in a huge roll of canvas and ropes and began to adjust the many different guy ropes and poles from which the balloon is suspended before inflation. The first act was to hang the canvas between two stays about fifty feet high and arrange the ropes so it was supported from either side. Then the canvas is hung between the poles and 25 or 30 boys form a circle and hold the cloth out so it presents the appearance of a huge tent. A fire is then built of kerosene under the canvas and the process of inflation begins. The big tent appears to be slow to swell up at first but toward the last it begins to puff out with the promptness of an independent legislator.

"While the balloon is being inflated with this hot air it presents an inspiring appearance; standing nearly 75 feet high it sways and heaves on the ropes apparently impatient to go on its errand through space. The parachute which looks like a large umbrella is about 10 feet across and while the balloon is being inflated is attached to a large hoop on the bottom of it and stretched out on the ground. Then when the balloon is cut loose from its moorings, the acronauts grasp the trapeze bar and are taken like rockets through endless space.

"Yesterday afternoon when the pistol shot sounded as a signal to cut the big airship loose, Professor Krug and Mme. Rubie Deveau, the 'Queen of the Clouds,' both reached for the trapeze bars and in a few seconds they were on their way to the clouds. After they had reached an altitude of probably 3,000 feet above the starting place, Krug cut the parachute loose from the balloon and made the descent landing in the creek.

"The nervy little queen was not prepared to descend at that time, how-



ever, and as soon as the weight of the Professor was cut loose the balloon took an extra shoot upward and the little lady looked like a diminutive speck in the sky. For a time the big crowd stood breathless as the big ship kept weaving and shooting still higher into the heavens. Her auditors began to believe as a matter of fact that she had met with some misfortune and could not cut loose from the balloon. It was an awe-inspiring sight, there over a mile above the earth, suspended in midair was a lady moving her handkerchief while the onlookers believed it to be a signal of distress.

“Finally a pistol shot was heard and in about 10 seconds, or as soon as the sound could travel to her, the parachute dropped, unfolded, and she started in the descent downward. When the parachute was first loosened it was folded up like an umbrella and for a few hundred feet she shot down like an arrow, then it opened and the descent was slow. While coming down it would weave to and fro and swing the lady’s body back and forth with what seemed to be dangerous force.”

The following month the *Journal* reported:<sup>(3)</sup>

“The Grace Shannon Balloon company was the attraction of Lincoln Park again yesterday. This company, it will be remembered, is the one that employs the nervy Rubie Deveau, known as ‘Queen of the Clouds.’ Yesterday afternoon she outdid all previous records as to the height of the ascent and furnished an emotional entertainment for over 4,000 people, who had come unto Tom Hickey’s fountain of pleasure. The ascension was not made until 5:00 owing to difficulties encountered in getting ready, but by the time the big air ship was cut loose the multitude looked on in wonder. Attached to the balloon were three parachutes, one for Mme. Deveau, one for Professor Krug, and also one for the dog that took a trip toward the happy hunting ground.”<sup>(4)</sup>

“Prof. Krug cut loose first, followed by the dog and then Mme. Rubie went like a flash through space. At times the big balloon would almost invert and swaying around in midair with the recklessness of an individual who has taken upon himself a jag. The height reached was estimated at 12,000 feet, and when Mme. Deveau came back to the park she was congratulated on the success of the ascension.”

Mrs. Owen made her last parachute jump in 1895 in London, Ontario, at which time she drifted into a chimney — breaking her back. She spent many months in a hospital and upon recovery, studied typing and shorthand at a business college in London, Ontario.

She became a legal stenographer and later homesteaded at McIntosh, South Dakota, where she met and married David W. Owen in 1919. They both worked for a road contractor and moved to Missoula in 1925.

Mrs. Owen’s husband died in Missoula in 1955 and she still resides there, showing a very understandable interest in the activities of the Missoula Forest Service smoke jumpers.

Mrs. Owen now lives at the Hillside Manor in Missoula (1964) and enjoys telling of her early day experiences, many of which are recorded in her scrapbook of newspaper accounts of her parachute jumps and balloon flights.

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# George Lowry

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George Lowry of Butte was a versatile showman, having a career which included the lucrative hobbies of ballooning and operating a miniature railroad, while following his profession as an electrician. He was employed in turn by the Butte Streetcar Company, the Anaconda Company, and the Montana Power Company.

George Lowry was born on January 11, 1886 at Homestake, Montana, and lived as a small boy in the Katy O'Brien log boarding house. His parents moved into Butte where he attended the Butte public schools.

Having acquired a Chinese paper balloon as a small boy, he became interested in balloons and read everything he could find on this elementary aeronautical subject. In 1908 Lowry purchased his first balloon and parachute from a Chicago balloon company operated by Professor Carl E. McGuire. This balloon when inflated was 85 feet in height and measured 65 feet through the bulge. This impressive muslin structure complete with instructions, parachute and trapeze cost \$175.<sup>(1)</sup>

A technician came out to Butte from Chicago and instructed Lowry in the inflation and operation of the balloon, and George was then in the show business.

The inflation of the balloon was an interesting procedure. Hot air was generated by building a trench with an oil drum as a flue and covering the trench with pieces of tin and dirt. A fire of hardwood was built in the trench and after the trench reached a high temperature, gasoline and coal oil were thrown on the fire. The black smoke from the coal oil included soot, which was deposited on the inside of the muslin balloon, impregnating the cloth and making the balloon airtight. The gases from the fire were conducted by the flue to the center of the balloon which was suspended from a rope between two upright posts. A network of light cords sewed into the balloon came together attached to a ring immediately below the bag. This ring, in turn, carried the harness and release mechanism for the parachute, which was also made out of muslin. A trapeze was fastened to the parachute and Lowry made his ascent sitting on the trapeze.<sup>(2)</sup>

Releasing the parachute from the balloon was accomplished by pulling a line attached to a toggle. Lowry commented that the balloon had approximately 1800 pounds of lift when inflated and it took 20 men to hold it down until the balloonist was ready to go up. He said that the balloon would lift ten men off the ground.

Lowry owned three balloons during the time between 1908 and 1917 that he toured the country making exhibition flights. He filled repeated engagements in Montana cities and annually followed a fair circuit in the midwest which included the cities of Minot, North Dakota; Davenport, Iowa; Rock Island and Chicago, Illinois.





*George Lowry balloon ascension, Montana State Fair, 1908.*

George Lowry



*Inflating Lowry dirigible balloon, Butte, 1915. Lowry purchased this balloon from Benbow.*

George Lowry

When being interviewed, Lowry stated that he had an inherent fear of water because he couldn't swim, and it was only after considerable persuasion that he agreed to make an exhibition jump in Chicago for Carl McGuire in 1912. Lowry received for this jump \$150 plus all expenses, and he was presented with a fine gold watch which he showed me. The watch was engraved by a then well-known Chicago jeweler named C. D. Peacock, and reads: "Northwest Balloon Association; Chicago, Illinois; 1912; George Lowry."

The Chicago exhibition ascension was made from the "Cubs' " Ball Park. Lowry said that as he went up the balloon started drifting toward Lake Michigan, and that at a higher altitude it drifted away from the lake. He cut loose over the city, landing on a building but without mishap. The gold watch was understandably the prize possession of George Lowry.

The type of parachute used by Lowry didn't have a vent in the center of the canopy and would oscillate in turbulent air, causing the air to spill out. Lowry experimented with a valve control and developed an elastic band around a vent in the center of the parachute which contracted and expanded with the varying air pressure caused by turbulence. This innovation stabilized the parachute and was incorporated in many parachutes thereafter.

(I made several parachute jumps in 1923 with an early Smith Backpack which had such a vent that later became standard on all parachutes but without the elastic variable feature. In later years a professional parachute jumper named Frank Derry, employed by the Forest Service in Missoula, developed side valves in the lobe of a parachute which could be manually opened or closed, and by which the parachute could be steered right or left as it descended. The "Derry slots" gave the parachute a 7-mile per hour forward speed and made it directionally stable with good maneuverability. This feature is now incorporated in 'chutes used by our paratroopers and by all forest service smoke jumpers.)





*George Lowry and balloon in Butte, 1908.*

George Lowry

George Lowry continued exhibition balloon work for many years. In 1915 he purchased a dirigible balloon in Columbus, Montana, which had been manufactured in Frankfort, New York, by Carl E. Myers. This dirigible was powered with a Wright two-cylinder engine. The hydrogen gas with which it was inflated was generated by the mechanical action of iron filings and sulphuric acid, with the gas being siphoned through lime water to take out the impurities.<sup>(3)(4)</sup>

On the first attempt to inflate the dirigible in Butte the generator blew up, injuring several spectators and putting Lowry in the hospital for several months, partially blinded by fragments of steel in both eyes. He made a complete recovery from the accident, but lost interest in the dirigible and went back to the hot air free-balloon for further exhibition work.

Two significant incidents were related by Lowry. In one, he was carried east from a point of ascent at Columbia Gardens by a high wind preceding a thunderstorm. He descended by parachute several miles east of Butte, having crossed the Continental Divide. In the second, Lowry made an ascent at Livingston in which he was carried by the wind across the Bozeman pass, landing just east of Bozeman, thereby having crossed two of Montana's high passes before the days of powered flight!

Lowry had several variations with his parachute jumping, including a team of parachute-jumping monkeys, one of which ended his monkeying career by trying to climb up the shroud lines and ride on top of the parachute. Another stunt, which he used at a fair in Minot, North Dakota, was to release white leghorn chickens from high in the air with prize tags attached. Small boys could then claim rewards for returning the chickens intact to the fairgrounds officials. Lowry said that the chickens and the monkeys seemed to enjoy both the balloon ride and the jumping.

An early Fourth of July miners' celebration in Basin in 1908 included on the program a balloon ascension and parachute jump by Lowry. A Mrs. Beck

ran a bakery in Basin, supplying baked goodies to both Basin and Butte customers. The miners' celebration brought business to her door, and as the crowd gathered to watch the balloon go up, Mrs. Beck was busy producing cakes and baked goods for the festive occasion. She had her stove and oven going full blast to turn out food for this hungry gathering while Lowry did his usual preparation of digging a trench and inflating the balloon. As it inflated more and more, volunteers held onto the guy ropes until about twenty men were required to hold the balloon which was now 80 feet high or more. Lowry described the fastening of the trapeze to the ring to which the balloon shroud lines were attached, with the apex of the 'chute being fastened to the release toggle which was in turn activated by a light line to the trapeze. The top of the balloon had a small sack of sand attached to tip the balloon over and empty it of the hot air so that it would not float away and be lost.

The balloon was scheduled to go up after dark on the Fourth of July, and Lowry had a basketful of fireworks attached to his trapeze for a super night fireworks display over Basin. As the balloon was nearly inflated, an inebriated but well-meaning miner picked up a five-gallon can of gasoline and dumped the whole contents on the fire. The resulting explosion startled the hold-down crew and they let go of the balloon and jumped back, with Lowry leaving the ground with the balloon on fire. Lowry jumped from his trapeze, breaking an ankle; the balloon floated across town and inverted, landing over the smokestack on Mrs. Beck's bakery, burning up the bakery and the balloon.<sup>(5)</sup>

George Beck of Basin told me he could still remember his father's futile attempt to put out the fire with a small garden hose, jumping sideways first one way and then the other as he dodged Roman candles.

Three years later Lowry made exhibition parachute jumps at the Helena Fair and at the Spokane Fair in 1911, following the same circuit that Cromwell Dixon did. Lowry made an exhibition ascension with his balloon in Spokane, and from the air he saw the pioneer aviator Cromwell Dixon crash to his death in a railroad cut near the Spokane fairgrounds.

Lowry made his last balloon ascension in Deer Lodge in 1926, having been given an ultimatum by his wife. The choice: either her or the balloon. Having enjoyed a visit with the Lowrys in Butte, I am of the opinion that he made a wise choice in giving up the trapeze act and his balloon.

Another activity related to showmanship in which Lowry participated was the acquisition and operation of a miniature railroad—steam locomotive, bell, whistle, cinders and all, at Lake Ovoka, an amusement center south of Butte. George Lowry probably was the only railroad president who ever made a parachute jump in Montana. He gave instructions in ballooning to students in Butte, several of whom did exhibition work including Charles Burns of Dillon, Montana; Bernie Wilbur, a restaurant operator in Dillon; and Florence Atwood (wife of Guy Atwood), who did parachute jumping in North Dakota.

This grand old man of a bygone age made his last ascent when he died in Butte in January of 1965 at the age of 79.



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# Walter Beck / B. C. McClellan

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By 1910, several people in the carnival and show business in Montana became aware of the increased public interest in the development of the heavier-than-air flying machine. One of these people was B. C. McClellan, a Missoula shooting gallery operator, who was a professional balloonist and parachute jumper.<sup>(1)</sup>

In 1910 McClellan organized the McClellan Aviation Company. That winter he went east to Elkhart, Indiana, where he had an airplane built which was a replica of the Curtiss biplanes being used to make exhibition flights in many parts of the country. A pilot named William McGrainer attempted flight in the McClellan airplane on the Kenwood golf links on May 15, 1911, with negative results, while McClellan was making final tests to enter his airplane in an air meet scheduled to be held in Elkhart on May 19 and 20.

McGrainer's misfortune in wrecking the airplane delayed the aviation debut of the Missoula showman, who shipped his wrecked airplane back to Missoula where it was rebuilt and christened the "Missoula." This replica of a Curtiss airplane, owned by McClellan, was 33 feet long with a 30 foot wing spread and a lifting surface area of 342 square feet. The airplane weighed 610 pounds and was powered with a 40 hp. Detroit Arrow engine weighing 215 pounds and with a thrust of 380 pounds. The machine was built of laminated wood and aluminum and covered with a rubberized silk cloth. The finest of piano wire was used in bracing the struts and the wings, and 136 turnbuckles were used in rigging the wiring. The craft was controlled by a body yoke and steering wheel.<sup>(2)</sup>

McClellan endeavored to get his airplane ready for exhibition flights and to compete with Eugene Ely, who was scheduled to fly in several Montana communities during the month of June. The Missoula Chamber of Commerce, interested in having exhibition flights made in Missoula, negotiated with McClellan to put on exhibitions. A. J. Breitenstein, the secretary of the Missoula Chamber of Commerce, was contacted by an advance man of Eugene Ely's. He advised that Ely would be glad to fly in Missoula following his exhibitions in other Montana communities if the Chamber could give them a guarantee of \$1200.

Considerable controversy developed between a group of businessmen wishing to support McClellan in his proposed exhibition flights and another group wishing to book Ely for an exhibition while he was in Montana. The former group finally capitulated, and Breitenstein was instructed to contact Ely for the Missoula flying exhibition with flights to be made at Fort Missoula on June 24, 1911.

McClellan later in the summer completed the rebuilding of his airplane and engaged Walter Beck, a recognized and accomplished automobile race



*McClellan airplane, modified and flown by Walter Beck in Missoula, 1913.*

George Croonenbergh



*Walter Beck flight in Missoula in 1911.*

George Croonenbergh



*Walter Beck and flying machine, Missoula, 1913.*

George Croonenbergh



driver, to test the airplane for him. Walter Beck, a Missoula boy whose father was a doctor, was well known throughout western Montana for his knowledge of and skill in driving gasoline buggies. He had been employed by Andrew Davis, a Butte banker, as a chauffeur. Beck had made several spectacular interstate runs while participating in road races with automobiles.

Walter Beck, with his background experience in fast driving, soon became quite proficient in taxiing the McClellan airplane on the flats south of Missoula. When it was announced that he would attempt an actual flight, some 2,000 people soon gathered at the outskirts of the city to witness the demonstration.

Beck managed to stagger into the air with the underpowered flying machine; however, he wound up in some telephone wires when he failed to clear them, and the machine was extensively damaged. Although shaken up, he received no injuries.

Walter Beck was truly a self-taught pilot. He learned to fly by the unforgiving trial and error method; with a curriculum which few pilots survived or completed. Those pilots who did survive were the pioneers who developed the basic knowledge which was invaluable in the demanding need for airmen in World War I.

The recovery from the dreaded "Tail Spin" was a major breakthrough, the problem of which was a reversal of control action and the lift characteristics of the air foil at low speeds.

Beck and McClellan soon repaired the machine and made several trial flights, following which Beck filled an exhibition engagement at St. Mary's, Idaho. There he had a forced landing due to an engine failure, but was able to skillfully land his airplane without damage. Walter Beck did considerable flying throughout the next year, and it was obvious to him and to the owner that the underpowered machine would need modifications. They rebuilt the airplane, and powered it with a 50 hp. Maxey motor which gave the machine better performance.

On September 9, 1913, Beck made a flight from just east of Bonner through the perilous Hellgate Canyon to Missoula. This was the first airplane flight through the canyon and into Missoula. That flight today is remembered as the beginning of cross country flying in the Missoula area.

Modifications to the McClellan airplane were made at the Newton Cabinet Shop, located on an alley just east of the present First National Bank.

Walter Beck continued on to make fair and exhibition flights in many Montana cities. One of his most outstanding ventures was a flight at Phillipsburg where the ground altitude is nearly 6,000 feet. This was a remarkable accomplishment at that altitude, at that time, particularly with the underpowered aircraft of that day.

Walter Beck continued his interest in flying. The writer first knew him as a frequent visitor to the early flying field at Missoula in 1923. Beck lived several years in California, and then returned to Montana where he served as a member of the first state highway patrol organized in 1935.

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## Eugene Ely

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Eugene Ely, an early day exhibition pilot flying a Curtiss biplane, attempted an exhibition flight in Billings, Montana, in 1910. The businessmen of Billings, with understandable foresight, recognized the value of an airplane flight as a public attraction; but they also were cognizant of the difficulty of trying to collect a fee from the spectators. They therefore, through the Chamber of Commerce, contracted for Ely to make a no-charge exhibition flight in Billings as part of a Good Roads Convention. This conclave was for the purpose of promoting better automobile roads in the state and making plans for "The Yellowstone Trail," a highway east and west through Montana.

Ely arrived in Billings from Portland, Oregon, on the 17th of June, 1910, with a Curtiss airplane which was shipped by railway express. This was now assembled in Billings. A commentator, describing the airplane, said, "To one who has never seen an airplane, the Curtiss biplane which is waiting at Seventeenth Street and Sixth Avenue North, presents a very unassuming sight. The monster bird looks to the inexperienced eye to be an exceptionally simple machine with its wide spreading wings and trailing tail, but that it is effective is shown by its record."<sup>(1)</sup>

"This machine which has made flights to 4,000 feet, as some have already done, has had the advantage of dense air near sea level in which to get a start. The greatest work an airplane experiences is making the start, but after a certain momentum has been acquired it is comparatively easy to keep the ship in motion. Flights attempted in Denver and Salt Lake have had to be abandoned because the machines were unable to rise high enough to clear the fences.

"This afternoon's flight will start at 5:00 p.m. from North Seventeenth Street and Sixth Avenue North, and the man-bird will soar over the city for some time in order that all may be given a sight which has never before been witnessed in Montana. Reports of the proposed flight have been flashed over the country and are attracting much attention from those interested in aerial navigation, because of the altitude."

Ely stated, "I am at a loss as to what to expect in my flight tomorrow afternoon, but I am certainly going to make every effort to fly. It will mean a lot to me if I can make a success of this flight, as there has never yet been a machine ascend from this altitude. If I meet with success tomorrow, I could make a six months' tour of Montana, making flights in different parts of the state. Already there have been a number of men who are delegates to this convention who asked me to talk business with them at my earliest possible convenience.

"I have high hopes of success, as I have made flights on the coast and taken another passenger up with me. You see, an aeroplane loses 48 pounds



carrying capacity with every 1,600 feet elevation, and as I believe the altitude of Billings is about 2,300 feet, I will lose about 145 pounds lifting power. I carried up a 135-pound passenger with me on the coast with comparative ease, so if I can get off the ground I am almost certain I can mount to a considerable height and stay in the air for some time." The commentator continued:

"Mr. Ely, while comparatively new to the business, has already acquired the distinction of being one of the foremost aviators of the country. His plane will be given a start along the ground for several hundred yards in order that it may be given momentum enough to carry it into the air before the propeller is started."

The airplane used by Ely in Billings was 30 feet long and 30 feet wide. It weighed 600 pounds and was powered by a 30 hp. Curtiss engine. The Billings flight attempts were not impressive. Ely did get off the ground for a hop of about two city blocks, skimming along within a few feet of the ground. But he found it difficult to keep the plane on its course because of a crosswind, and on his last attempt he drifted off the roadway, causing him to break a wheel as he landed.<sup>(2)</sup>

Ely, who was born in Williamsburg, Iowa, was a lieutenant in the army. He served in the Philippines, being wounded three times and decorated three times. When he returned to this country he became a car salesman and chauffeur in San Francisco; there he received public notice for very commendable rescue work during the San Francisco fire and earthquake of 1906, at which time he carried injured people to medical centers and hospitals by automobile, exhibiting great skill in driving through the devastated areas of the city.<sup>(3)</sup>

After the unsuccessful flight attempts at Billings, Ely continued flying. He successfully flew an airplane from the deck of a battleship in Chesapeake Bay in a demonstration for the Navy. On this demonstration he settled into the water, chagrined but unhurt. He later flew another airplane from the deck of the *U.S.S. Pennsylvania* in San Francisco Bay. There he successfully flew over the Bay, landing on the shore. This was the first successful takeoff of an airplane from a battleship, and created much interest by the Navy at that time.

In 1911 Ely returned to Montana. He made successful flights at five Montana cities — Butte, Great Falls, Kalispell, Lewistown and Missoula. These exhibitions proved a sensational public attraction and were similar in character, with huge crowds of nonpaying spectators. But at Butte and Great Falls—where people paid—there was a large crowd of dissatisfied spectators. The exhibition flights by Ely did draw record crowds in each community.

Ely arrived in Butte on June 9, 1911. He was preceded by advance publicity in which it was stated that there would be a mammoth air meet sponsored by the Curtiss Exhibition Company and participated in by three airplanes. The Curtiss airplane brought to Butte by Ely was a much improved model of the one shown at Billings the previous year, powered by a Curtiss VI 60 hp. engine and equipped with Voisin equilibrators (ailerons).<sup>(4)</sup>



*Ely flying machine, Fort Missoula, 1911.*

N. B. Mathews

It was announced that Ely would attempt to set a world altitude record and for this purpose would use a special gasoline of 86° volatility. The world record at that time was 12,100 feet. In Butte Ely would attempt to fly to 13,000 feet with the ground altitude of 5,300 feet providing a good start. It was stated that he might even cross the Continental Divide if conditions were right, and he also might attempt a difficult air maneuver called the “spiral dip.”

Other aviators scheduled to arrive in Butte included Robbins and St. Johns; however, these two aviators were unavoidably delayed.<sup>(5)</sup>

On Sunday, June 3, 1911, 8,000 people gathered in Butte to witness the exhibition of airmanship as Ely took off. He soared over the crowd, then climbed up to fly along the rugged mountains east of the race track, where he rose to an altitude of 7,800 feet. Ely returned to the race track. After landing, he stated that even though he was able to go high enough, the air currents appeared too dangerous to risk crossing the Divide to the east.

A special attraction on his second flight was a race between the airplane and a 36 hp. Stevens-Duryea car driven by Howard Pierce, with Pierce winning by a scant margin. This spectacular early Butte air meet included horse races, automobile races and motorcycle races.

Ely was now familiar with the air currents, and was scheduled to do more difficult and exacting maneuvers with St. John scheduled to fly on the second day. Ely was prevented from flying on Sunday because of bad weather; however, he again attempted an exhibition flight on Monday.<sup>(6)</sup>

On this second day of the meet the crowd became unmanageable. Ely damaged his machine in attempting to take off when he swerved to avoid people who ran out in front of him. The crowd's disappointment was reflected in the action taken by the harassed show sponsors, who deducted \$1,000 from the payments to the Curtiss Exhibition Company as a forced contribution to an indefinite miners' charity. It seems that the gate receipts were not what the sponsors expected, as the nonpaying spectators overran the race track.



The crowd, acclaimed as the largest ever gathered in Butte, even taxed the facilities of the three railroads as people poured into Butte from surrounding communities. A contributing factor to the dissatisfaction of the crowd was the bad weather immediately following the first day, on which two excellent demonstration flights had been made.

Ely departed from Butte for Great Falls. He arrived there on June 14 and arranged to make exhibition flights from the Black Eagle ball park. An added attraction at Great Falls was an airplane exhibit by a local boy, T. T. Maroney, an air enthusiast who later became a recognized exhibition pilot, not only in Montana but in the northwest. Ely generously gave valuable suggestions on modifications to be made in the homemade airplane which Maroney exhibited.<sup>(7)</sup>

In Great Falls the assembled crowd gathered at the ball park to witness the exhibition flights by Ely, as well as to see a baseball game between Great Falls and Salt Lake teams. It was estimated that 3,000 or more people from the surrounding communities came to the Electric City by special trains on the Great Northern and Montana Central railroads. Of these people, 2,500 paid \$1.00 each to see the show, but, as in Butte, they were exceeded by a nonpaying crowd gathered in the adjoining fields and on the hillsides.

Ely's flying machine was rolled outside of the ball park through a hole in the fence, and the first flight was actually made without the paying customers becoming aware of it. The 3,000 outside customers surged toward the airplane as it took off. Ely had to land about a mile away to avoid the crowd which had submerged the half-dozen policemen who were attempting to patrol the area.

Second and third flights were made, this time keeping away from the crowd, with landings made on a "space available" basis. The paying spectators (who had been watching the ball game) were indignant because they were not advised of the flights. The management was unhappy because of the lack of gate receipts, and Ely was unhappy because he was supposed to get half of the receipts which couldn't be collected from the majority of the spectators. The management refused to pay and litigation dragged on for months, with a final settlement to the Curtiss Exhibition Company of \$1,350. The claim had been for \$1,775.75, with 8% interest.<sup>(8)</sup>

Ely and his three mechanics then left Great Falls for Kalispell by way of Helena, with the airplane going by railway express. He arrived in Kalispell on the 18th of June and flew on the 21st. Here he made two flights from the fairgrounds and praised the management for handling the crowd, which again was twice as large outside as it was inside, the outside crowd occupying all points of vantage, including buildings, fences and the buffalo pasture.<sup>(9)</sup>

Ely flew June 26 at the next scheduled stop, at Lewistown. The Lewistown exhibition was sponsored by George D. Cochrane of the Neill Land and Townsite Company. Cochrane made trips to both Butte and Great Falls to see Ely fly, and to arrange with his agents to schedule flights for Lewistown. Cochrane personally guaranteed Ely's show there, thereby bringing the first air meet to central Montana.

Ely and his mechanics were brought by train to Moore. There they were met by a Lewistown delegation which escorted them to Lewistown by automobile. Ely was at the wheel of one car, racing with the local hotrod champion, Harry Allen, who was also scheduled to race against the airship the following Sunday.<sup>(10)</sup>

Delegations from surrounding communities swarmed into Lewistown to see the show which was started by an automobile parade, followed by a three-mile race between Ely by air and Allen by land.

The show scheduled for Sunday was postponed because of weather, and on Monday, which turned out to be a beautiful day, Ely gave a masterful demonstration of his flying skill.

The flight of the machine was described as being "comparable to riding a bicycle, with various wires running from the seat to the controls. The feet of the driver rest on the control section of the engine, which is a 60 hp. Curtiss eight-cylinder motor similar to an automobile engine. The propeller gets 1,400 revolutions per minute when the engine gets full speed and it is possible to stay up five hours."

The airplane was pushed out to the stretch (runway) and after donning his leather coat, Ely stepped nonchalantly into the seat, with absolute confidence in Hoff and his assistant mechanics. He didn't so much as bestow a casual glance at the biplane. Just in front of the grandstand the ship began to leave the ground, going up as gracefully as a giant bird. He darted off toward the South Moccasin mountains, going out over the poor farm and traveling several miles at high speed. Returning, he came back over the grandstand and made a sudden dip, then went on up. He went on around the grounds, and from about 800 feet dipped and headed toward the field. As he neared the ground he stopped the motor and landed as lightly as a feather. The machine skipped along the ground until stopped by the helpers. Ely was greeted with enthusiastic applause as he stepped from his seat. The crowd of some 2,000 inside the fairgrounds were again outnumbered by spectators on the hillsides.<sup>(11)</sup>

On the second flight Ely showed his mastery of the air. Harry Allen had his 60 hp. Premier stripped for the race and out on the track when Ely went up, and after a few preliminary turns the airship and auto started on the race. From a good height Ely swept down, getting almost as low as the roof of the grandstand and causing the spectators on the ground to dodge in all directions. Several laps of the track were made, with Ely making wide turns and overtaking the automobile on the straightaway. It was considered that Allen bested the airplane by a slight margin.

Ely flew over the hills and over the Lewistown Heights, flying above the addition with a swing to the east, returning to the fairgrounds in a graceful turn and coming down on the field as easily as he had the first time, having been in the air for twenty-five minutes.

Ely then joined the spectators in watching a bronc-riding exhibition by Al Morgan and Frank Biglen, followed by a baseball game with the town of Moore.

Ely stated that he would give only a few more exhibitions before retiring





*Ely in flight at Missoula, 1911.*

N. B. Mathews



*Ely over Fort Missoula.*

N. B. Mathews

and going into the business end of aviation—constructing and selling airplanes. He stated that from Lewistown he would go to Missoula and then Canada and on to Chicago the next month.

People from the Missoula trade area came flocking to the city to see Ely fly. The railroad put on ten extra coaches to bring folks from the Bitterroot Valley into town for this exciting event.<sup>(12)</sup>

Ely and his party arrived on Monday, June 26, and made preparations for flying from the ball park at Fort Missoula. The weather was fine, and in a stiff breeze Ely took off from the ball park at the Fort on the first of three flights, circling the valley and giving a thrilling exhibition before an impressive crowd which had flocked to the Fort via streetcar, train, highway, and on foot to see the demonstration.

Missoula was delighted with the exhibition and thrilled by the strange beat of the mighty propeller as the biplane rose easily into the stiff breeze.

Everyone, that is, except the crowds assembled on the slopes of Mount Sentinel and Waterworks Hill. They were too far away to see much.

On the third flight Ely took up his chief mechanic, William Hoff, who weighed over 150 pounds. This was a record for this altitude and Hoff probably was the first passenger to fly in Montana in an airplane.

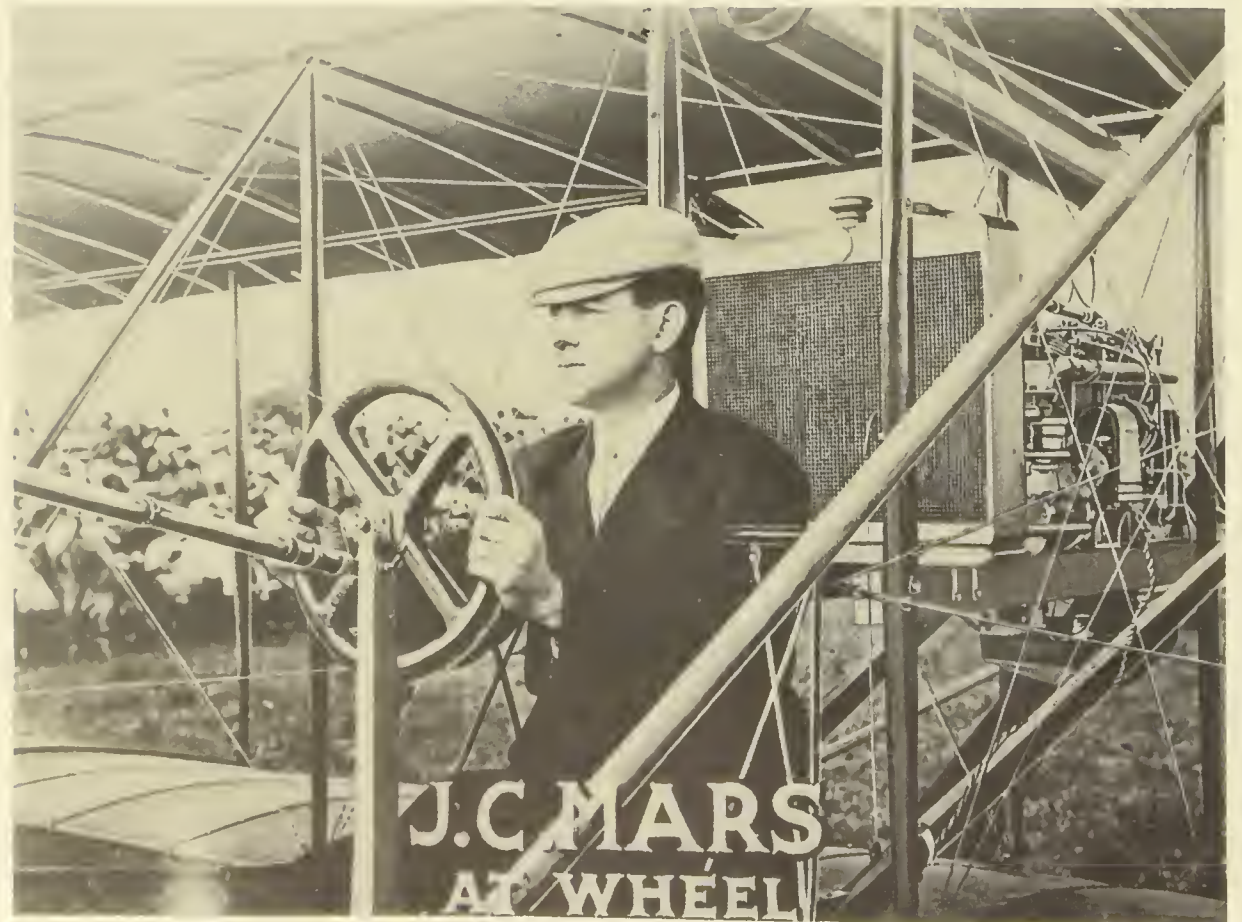
The crowd's enthusiasm was a pleasure to Ely, and he was delighted when Dr. Joseph Oettinger tried to buy the machine. Ely said that it wasn't for sale but he could get the doctor one like it.<sup>(12)</sup>

Ely stated that the Missoula flights made a total flying time on this machine of 109 hours and 20 minutes, acquired since December of 1910, an impressive amount of time in those days.

After the Missoula flights, Ely crated his machine and departed for Chico, California for an exhibition, following which he was scheduled to fly in Reno on July 4th.

The *Missoulain* mentioned other aviation activities of the time, including a military interest in flying, with officers of both branches of the service having been assigned to the Curtiss school in San Diego for flight training. It was stated that the officers to be given flight training included three army officers and two navy officers: Ellyson and Pousland of the navy; and Beck, Walker and Lt. G. E. M. Kelly of Great Falls, Montana, of the army.<sup>(12)</sup>

Ely continued to fulfill engagements throughout the summer and until his death in an airplane crash on October 18, 1911, at the state fair in Macon, Georgia. He fell in the infield of the racetrack and was seen to jump from the machine just as it hit the ground. It is reported that he lost control of the machine in a spiral dip over the field. Eugene Ely had flown at the Georgia Fair for eight consecutive days before the accident.<sup>(13)</sup>



Cliff Smithers



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# J. C. "Bud" Mars

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J. C. "Bud" Mars made airplane flights at the State Fair in Helena in September, 1910. He flew a Curtiss pusher airplane which was the featured attraction at the fair that year. Mars made daily exhibition flights during fair week. He specialized in the death-defying maneuver called the "circular dip" and another impressive demonstration which really shook the spectators up; he descended from 1,280 feet altitude with the motor completely shut off. The altitude is taken from a newspaper account of that time; they must have had very accurate altimeters to be able to determine that specific height.<sup>(1)</sup>

On the third flight on the first day of the fair, Bud overshot a landing and cracked up to keep from hitting the fence. The press reported that the "little wheels" just couldn't take it and collapsed, breaking three ribs in a lower wing. Many Montana pilots have experienced the same difficulty, but in most cases without a paying audience. The first news release stated that Mars had broken three ribs, and a later technical explanation gave the Montana public its first ground school lesson in the terminology of aviation.<sup>(2)</sup>

Other flights from the infield at the fairgrounds included a demonstration of flying in a high wind which attained a velocity of twenty miles per hour. It was noted that the crowd started to leave the fairgrounds immediately after the last scheduled flight of the day. In previous years, the holding attraction at the fair had been a hair-raising exhibition of automobile racing. But after seeing the airplane flights — many for the first time — Montana crowds were no longer going to be held by the uninteresting spectacle of a few autos traveling at high speed. Mars had another slight accident later in the week when he turned abruptly to miss a horseman.

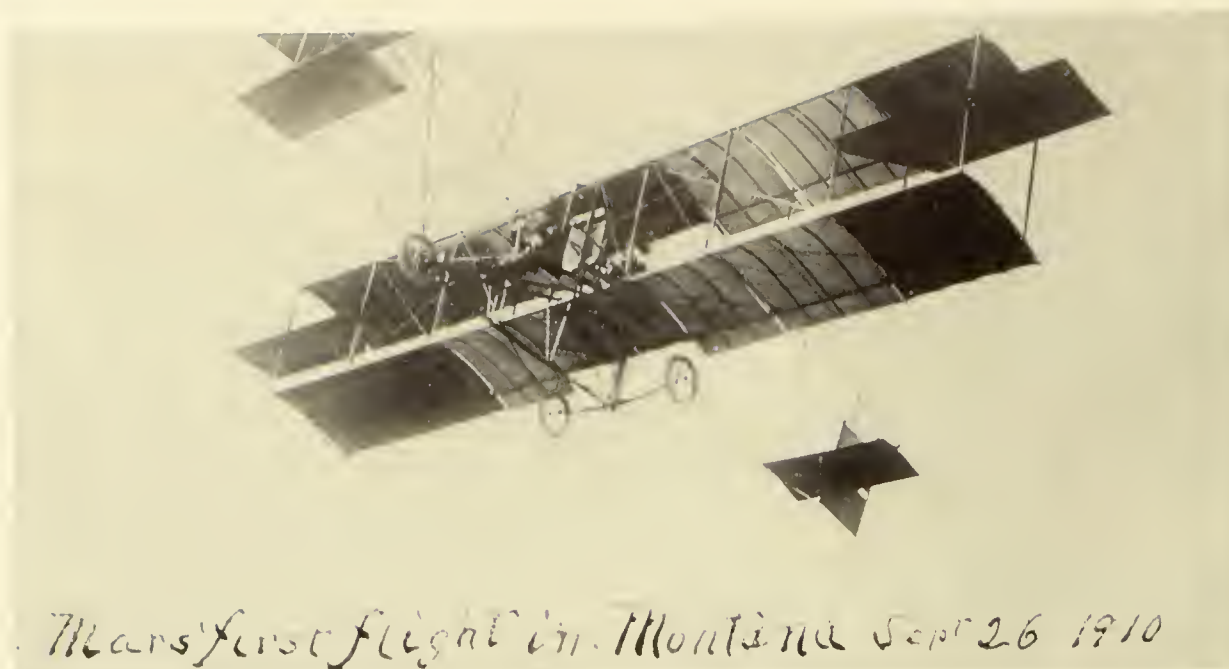
On September 30, Mars attempted to cross the Rocky Mountains. He was caught in a suction in Magpie Gulch, where the airplane settled to the ground just short of crossing the Continental Divide. Mars had reached an altitude of 7,600 feet, and had flown 21 miles.<sup>(3)</sup>

On this last flight at the fair, the pilot had hoped for favorable weather conditions for an attempted flight across the Rocky Mountains. He started at



*J. C. Mars and Aeroplane Skylark.*

Helena 1910



*Mars' first flight in Montana Sept 26 1910*



C. MARS IN FLIGHT

Cliff Smithers

11:00 a.m., and after circling the track flew east across the Helena valley, climbing as he went. He then returned north of the fairgrounds and Fort Harrison, and was seen to pass behind the Scratchgravel hills. Here the airplane encountered a downdraft, losing 2,000 feet in two minutes. Just short of going through the pass, the propeller hit a boulder, throwing Mars from the machine and damaging the tail of the aircraft beyond repair.

The accident was witnessed from Fort Harrison by Colonel Wilson, who immediately assembled a company of soldiers and sent them to assist the aviator. The soldiers carried the machine to a road and it was returned to the fairgrounds by late afternoon.

In those days, three accidents in one week were about par for the course. With an average of three exhibition flights a day, Mars would have had a twenty per cent casualty rate. Considerable of an occupational hazard with nothing in front of the pilot except thin air and a couple of pieces of bamboo, and with a heavy engine trying to play piggy back and breathing down your neck.



As a gesture in recognition of the hero-worshipping fair crowds, Mars presented the rudder of the airplane to the State Fair Board. It was placed in a permanent exhibit in the top floor of the Kohrs Block as a memento to the first airplane flight ever made at a Montana State Fair.

Bud Mars and his two mechanics, Cook and Ammons, repaired the machine, which was disassembled and placed in packing cases, then shipped to Spokane for an exhibition engagement. The pilot gave an aviation talk to the students of Helena High School and St. Vincent's Academy, suggesting that they form an aeronautics club. He backed up his suggestion with a \$10 cash contribution, to be used to help finance Montana's first aviation education program.

[It may be worthy of note that the aeronautics department of the Helena high school for years has been one of the few accredited schools for the training of airplane and engine power plant mechanics. This aviation trades school has operated for some 30 years and is recognized as one of the best in the country, each year turning out several qualified and certified airplane and engine mechanics.]

Before leaving Helena, Mr. and Mrs. Mars attended a duck dinner in their honor as guests of the people of Helena, and then departed by train for Spokane, Washington. The menu of duck was selected as being symbolic of flying.<sup>(4)</sup>



*From left: Kelly, Beck, Curtiss, Witmer, Walker, Ellyson. North Island, February, 1911.*

Kelly Field Historical Society



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# Lt. George E. M. Kelly

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On May 10, 1911, a young Montanan named George E. M. Kelly sacrificed his life in an airplane crash on a flying field near San Antonio, Texas. The field today is known as Kelly Air Force Base, and is probably the best known flying field in the country, where many of our military pilots, later to become high ranking officers, obtained their first flight training.

Lt. George Kelly was born on December 14, 1878, in London, England. He was the second U. S. Army aviator to be killed while piloting a military airplane, and the plane was the second purchased by our government. His death was called heroic because the findings of the accident board revealed that he swerved his plane to avoid endangering the occupants of the adjacent infantry camp.<sup>(1)</sup>

Kelly was the nephew of B. B. and E. W. Kelly of Great Falls, Montana. He came to Montana from England in 1896 to become a Montana citizen. Kelly was engaged in electrical work at the Anaconda smelter in Great Falls.<sup>(2)</sup>

In 1903 George Kelly went to New York City where he enlisted in the coast artillery. Within a year he took examinations for a commission and passed, becoming a second lieutenant in 1907. He went with his regiment, the Thirteenth Infantry, to the Philippines for two years' duty, and when the regiment returned to this country, secured permission to visit England and make military observations of the flying activities there.

In England, Kelly watched the British army at war practice on Salisbury Plain. There he saw Samuel Cody, the former Montana cowboy, along with English officers flying the crude European airplanes of that day. Kelly was tremendously impressed with the importance and potential of this new activity as related to military observations.



*Glenn Curtiss with two Army and two Navy students, North Island, 1911. (Kelly without cap.)*

Kelly Field Historical Society





*Lt. G. E. M. Kelly; U. S. Army, 1911.*

Kelly Field Historical Society

Back in the states, he made a significant report to the war department and gave his impression of the future of the airplane in scout work, following which he received a letter of thanks from the chief of the general staff.

In San Francisco, a civilian pilot named Brookins had been flying a Wright airplane on exhibition flights. Kelly prevailed upon Brookins to take him up over San Francisco Bay, where he made sketches and took photographs of the fortifications and military installations at Presidio. These were the first aerial photographs to be taken by an army officer from an airplane. Kelly sent them to the war department, following which he received orders to report to the Glenn Curtiss aviation school in San Diego, California.

When the U. S. Army mobilized on the Mexican border in 1911, Kelly was detailed as a scout aviator at San Antonio. One day he returned from a scouting trip along the border and attempted a landing in a strong breeze. "As soon as the plane struck the ground, the front wheel twisted over to one side and the front struts rammed into the ground and broke. Then the engine burst into a roar and the airplane jumped into the air, traveling at the rate of 75 miles per hour. Spectators saw that the steering gear was hopelessly damaged.<sup>(3)</sup> A contemporary account states:

"Kelly had one chance for his life, but he was too inexperienced to seize it. It was to reach under the seat and stop the engine by shutting off the magneto. But with his death but the twinkling of an eye ahead of him, Lt. Kelly did something of which the United States Army was proud. A distinguishing trait of the young officer was his consideration for others. The wild aeroplane hurtled but 150 yards altogether and was but twenty feet up, but it was roaring straight for the tents of the Eleventh Infantry. Lt. Kelly might die alone or take others with him. He banked the plane and swerved aside. The tip of the low wing touched the ground, the other end whirled over and the machine went nose down, twisting, plunging, completely hid from view in a writhing cloud of dust. The engine continued to thunder in the dust cloud for some seconds, then the gasoline service failed and the piano wires twisted up with the propellers and the engine stopped. The dust drifted away and the spectators discovered the aeroplane in a crumpled heap. Lt. Kelly was lying unconscious twenty feet away, free of the wreck."

In 1917, Lt. Kelly's family still resided in Ireland. When notified that Kelly Field had been named in his honor, Mrs. May Bell-Kingsley of County Tipperary wrote a letter to the commanding general of the Texas department, expressing appreciation of the family for the honor of having Kelly Field named after her nephew.

The story of the plane in which Lt. Kelly met his death is interesting. It was a Curtiss D pusher-type IV military. The *New York Times*, on October 11, 1953, printed a story of this airplane as contained in a letter from General "Hap" Arnold, in which he gives the account of several crashes of this second ship that the army owned, involving Lt. Walker, Lt. Beck, Lt. Kelly and others, with an account of the repeated rebuilding of the airplane.

"Gem" Kelly was one of the first of many who contributed their lives to the advancement of aviation, and to flying as we know and enjoy it today.





Cromwell Dixon, Helena fairgrounds, 1911.

Neison Story



Cromwell Dixon license, Aero Club of America, 1911.

Montana Historical Society

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# Cromwell Dixon

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The feature attraction at the Montana State Fair in September, 1911, was a daily airplane exhibition flight by a 19-year-old aviator named Cromwell Dixon. Like so many exhibition pilots in those days, Dixon was sponsored by the Curtiss Exhibition Company of New York City. Exhibition pilots purchased their aircraft from the Curtiss Company and paid for their machines while doing exhibition flying. The Curtiss Company acted as booking agent. The aviation program at the State Fair was climaxed on September 30, when Dixon established a world's record by flying from the fairgrounds across the Continental Divide to Blossburg, returning to the fairgrounds and thereby winning a purse of \$10,000 which was put up by local aviation enthusiasts for the first airplane to fly across the backbone of the nation.<sup>(1)(2)</sup>

Dixon made his takeoff from the fairgrounds at 2:00 p.m., flying west and struggling for altitude. He cleared the crest of the Divide at 7,000 feet and, guided by a smoke signal from a fire built by the cooperative people of Blossburg, landed in a grassy field one-half mile from the railroad depot of this little Montana community. Blossburg is eighteen miles west of Helena at the west end of the railroad tunnel through the Divide and at an altitude of 5,000 feet above sea level.

Dixon's flight was viewed with interest by all professional pilots of that time throughout the country, as the performance of aircraft taking off from high altitude and operating in mountainous areas was an unknown quantity. Dixon landed at Blossburg at 2:34 p.m., having completed a flight of some twenty miles. He presented the dignitaries gathered at Blossburg with a letter from Governor Edwin L. Norris, thanking them for their cooperation. Then, walking over to the telegraph office in the railroad depot, he sent a telegram to the officials of the Curtiss Exhibition Company in New York City advising them of his accomplishment.<sup>(3)</sup>

The teenage pilot climbed back onto his airplane, which a Helena paper described as a "motor kite," and took off down the sloping field at 3:16 p.m. At 3:37 he was sighted crossing the Continental Divide and then landed in the infield at the Helena Fairgrounds where he was congratulated by the appreciative and enthusiastic crowd assembled to witness this record-breaking air travel demonstration.

Dixon was killed two days later while flying at the Spokane fair. His death was mourned by his many new-found friends in Montana, who immediately subscribed funds for the erection of a granite monument with a plaque to commemorate his accomplishment in crossing the Divide, and to perpetuate his memory. This monument today is located in front of the administration building on the Helena municipal airport.

In 1939 the United States Forest Service built and equipped a recrea-



tion area and picnic ground on the Continental Divide in commemoration of Dixon and his history-making flight. This campsite is equipped with tables, fireplaces and water and is often the scene of summer gatherings. It is located adjacent to the interstate highway fifteen miles west of Helena and five miles south of Blossburg. Blossburg is located along the main airway east and west through Montana and many times daily, scheduled airlines fly over the town.

Pilots and passengers in the high flying jets seldom give a thought to the Continental Divide or the incident of the struggle required to nurse the first airplane over this mountain range dividing the drainage of the waters of our country, and from which streams flow into the Pacific or the Atlantic.

An interview in recent years with a sister of Cromwell Dixon brings to light the remarkable activities of this early-day youthful pilot who contributed so much to aviation in the few short years of his life.<sup>(4)</sup>

Dixon was born in Columbus, Ohio on July 9, 1892, and at the age of 14, with the help of his mother and sister, built a flying bicycle. This he flew at the Columbus, Ohio, fair and later at the St. Louis Exposition in 1907. This machine was an elongated gas balloon propelled by an airscrew driven by bicycle pedals. Cromwell acquired valuable experience from building and operating this machine and he did exhibition flights in many places including Seattle, where he made several balloon flights in 1909.

With the experience of many lighter-than-air flights to profit by, he switched over to heavier-than-air, and after receiving flight training from the Curtiss school he obtained Fédération Aéronautique Internationale license No. 43, which was issued to him on August 31, 1911, a month before his history-making flight in Helena.

Dixon is buried in the Green Lawn Cemetery in Columbus, Ohio.



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# R. C. St. Henry

"LUCKY BOB"

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The cowtown of Miles City was understandably upset in June of 1911 when "Lucky Bob" St. Henry wired that he would not be able to make the scheduled exhibition flights due to a cylinder on his airplane engine breaking at 1,200 feet altitude over Mandan, North Dakota.

The following quoted news releases can't be improved on in describing the intense interest and feeling experienced by the expectant people of our Miles City. I vividly remember the big, red Winton car referred to. It was owned by Carl Calvin and considered to be the most powerful machine in the area, even if it did break a spring every time it ventured out. Ten years later Carl Calvin was a stockholder and member of the Aero Miles City Club.<sup>(1)</sup>

St. Henry was scheduled to fly on June 21 and 22, 1911, and the *Miles City Daily Star* of June 20 carried the following article:

"ST. HENRY FALLS 12 HUNDRED FEET. AIR FLIGHTS POSTPONED UNTIL JUNE 24 AND 25 — DUE TO ACCIDENT TO MACHINE. 'Mandan, N. D., June 19, 1911. Vin Fortune, Miles City. Due to accident here yesterday will have to postpone until 24th and 25th. Cylinder broke twelve hundred feet up yesterday. New parts enroute. Wire quick if O.K. St. Henry.'

"The above wire received late last evening explains itself . . . but thus far, no particulars are at hand, as to whether the daring aviator himself has sustained injury, though one is lead to believe, that having already well-earned the soubriquet of 'Lucky Bob,' from the numerous escapes he has already had from seemingly certain fatalities, he has once more escaped serious harm, and will as he states, be with us June 24 and 25.

"The calm manner in which the aviator speaks of a cylinder breaking at a height of 1,200 feet, is really refreshing to the man who is glad that he is on the ground looking up, and he is perfectly willing that the fellow who is seeking sensations, may continue to go just as high as he wishes, and turn all of the somersaults and cut as many pigeon wings as he cares to, while anywhere between here and Mars."

The *Daily Star* of June 21, 1911, reported further:

"'Lucky Bob' St. Henry came in yesterday from Mandan, N.D., where he had a close call yesterday from being splattered over the ground had he failed to glide his airship to earth from . . . 1,200 feet . . . [he] safely descended by dives and crooks.

"At the Olive Hotel last night St. Henry said . . . that was the nearest to having his earthly career checked.

"'I didn't have any fear [he said] and I didn't think a thing but to get down to dirt. . . . You see when the engine broke the aeroplane stood almost stationary. I turned it downward and fell straight in order to gather the air, as it were. At a certain distance I righted her and she sailed smoothly along.





Bob St. Henry, Battineau, North Dakota, 1911.

George Lowers

“I kept repeating the diving and sailing until close to the earth and then righting her she slid gracefully along and gradually settled to the ground.

“It is hard work running an airship . . . and it takes nerve. I am in the business and don’t know at what time the gong will strike for me, but until it does, well, I’ll go up in her. I will say . . . I hope she will behave better in Miles City than she did at Mandan.’”

And from the same issue:

“COWBOYS COME IN TO SEE AIR SHIP — Mad Enough to Shoot Up Vin Fortune When They Were Told of Postponement.— Well, when Ralph Gilmore and his ‘bunch’ came in last night to have a little ‘set-to’ with Steve Forseth, they expected to remain over for the airship stunts which St. Henry proposes to put on.

“There was much disappointment, however, when the boys learned the airship business had been postponed until June 24 and 25.

“Dick Anderson and ‘Hooton’ Pete Wells were mad enough to ‘slap leather’ and ‘Hooky’ Bill Combs and Smith White were so savage they could have shot up the Olive hotel where St. Henry was sleeping with his boots on.

“‘Now then,’ said Hooton, ‘there’s that tenderfoot paradin’ in the air like a goat in water an’ by switch he’s backed out with that craft. Tell you what, fellows, I’d sooner ride the most vicious and meanest bronc in Montana than ride that airship critter.’

“‘That’s all right, Hooton,’ called ‘Hooky’ Bill, ‘but I betcher life she’s no worse ’an the yeller bronc I busted up last year. He’d climb a butte like he—’

“The boys have been out since May 1, rounding up cattle from Powder River to Miles City and are as fine a set of fellows that ever came to town. They are the kind of men one reads about and as square as men are made.”

On June 22, the *Star* reported:

“St. Henry’s mechanics were busy yesterday afternoon going over ‘Sweetheart’ as Lucky Bob calls his pet, the airship . . .

“Tomorrow the big ship will be set up and housed in Lakin Brothers’ tent, in the center field of the race track, and as soon as the new cylinder arrives the machine will be tested.

"Glendive insists that Lucky Bob visit that city, even if he cannot fly there, and in answer to the invitation, the bird-man will go there tomorrow, returning in the evening . . . [he] dislikes the idea of being placed upon exhibition as a species of freak. He realizes though it is part of the game, and as gracefully as possible, submits to having the public look him over, and ask him a lot of near-foolish questions.

". . . Positively no one will be allowed inside the center field fence, during the flights, and should any undertake to intrude, St. Henry will refuse to fly. There will be ample time before the flights to examine and have the machine explained to them . . ."

Friday, June 23:

"The new cylinder . . . arrived yesterday morning. . . . Several hundred persons went over to the grounds to see the mechanical marvel, and all were intensely interested watching the skilled mechanics.

"The feature that struck the visitors most pronouncedly yesterday was the weight of the machine. When Lucky Bob is in the seat, the equipment weighs 750 pounds . . . one is astounded contemplating the lifting of so much weight to such dizzy heights as the bird-men fly.

". . . An auto with four cylinders is considered a powerful machine, and one like Carl Calvin's . . . with six cylinders is sufficiently strong to carry any reasonable load over roads that are at all passable, but when compared with the eight cylinders of St. Henry's craft the big Winton is overshadowed.

"St. Henry has no engagements for 52 days' flights between this time and the end of September . . ."

The editorial in the *Miles City Daily Star*, June 25, 1911, blasted adults who witnessed the previous day's airplane flight without buying a ticket:

". . . Public spirited citizens guaranteed the attraction at an outlay of considerable money. Everybody was expected to do his part in patronizing the event. . . . Fully 150 persons were seated on a barn just outside of the grounds where they could observe the performance to as great an advantage as the people inside who parted with their money.

"It is a pardonable offense when a boy crawls through the fence, because we all remember our youthful days and the circus, but to have an adult and of means too, mind you, perpetrate such an offense is beyond human endurance. Such a man should be advertised."



*Early Exhibition Flight.*

W. H. Minnerly



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# Terah T. Maroney

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Terah T. Maroney made his first airplane flight in Great Falls on July 6, 1911. This flight was really a hop of a distance of 300 feet, at which time the underpowered "flying kite" again contacted the ground and Maroney, in his explanation to the press, expounded on the theory that the further the airplane goes up, the greater the pull of gravity. This theory was not too far wrong and the result is the same even though the forces involved may be different.<sup>(1)</sup>

Maroney was born in Murphysborough, Tennessee, on March 7, 1880. He later moved with his family to Huntsville, Alabama, where he grew up and became known as a meticulous and skilled cabinet maker. Maroney came to Butte in 1908 where he engaged in the building trade. He then moved to Big Timber and had an ambition to become a railroad locomotive engineer. He was unable to qualify for the physical test and shortly thereafter moved to Great Falls where he worked for a sash and door company.

Maroney developed an early interest in airplanes. He first came to the attention of the people of Great Falls and the press in making his first flight in a homemade airplane.

Eugene Ely flew in Great Falls the same summer and Maroney, in comparing his airplane to the Curtiss airplane flown by Ely, stated that the Curtiss airplane had an engine of 50 hp. and a propeller with a 5-foot pitch, while his airplane only had a 30 hp. engine and a propeller with a 3½-foot pitch.

Following this early flight attempt, Maroney built a second airplane. Although limited in performance, it was more successful, and he flew from a field near the smelter to the bluffs below the present Great Falls airport and returned.

Maroney attended the State Fair in Helena in 1911, where he assisted Cromwell Dixon in his exhibition flights. He was able to raise sufficient capital to enroll in a flight training course in the Curtiss School in North Island, San Diego, California, and to purchase a used Curtiss airplane. He graduated from that school and successfully passed his flight test for an FAI license, being issued a certificate on March 14, 1912. A picture, taken after his graduation, shows Maroney about to "mount his airplane," looking for all the world like a cavalryman with one foot in the stirrup.<sup>(2)</sup>

Like Dixon, Maroney paid for his training and his airplane by doing exhibition flying.

The sales contract between Maroney and the Curtiss Company is an interesting document and a record of his purchase of his Curtiss airplane.

## *Sales Contract*

"Contract made this 29th day of May, A.D. 1912 between the Curtiss Aeroplane Co., of Hammondsport, N. Y., party of the first part and T. T. Maroney of



*T. T. Maroney, San Diego, California, 1912. Mounting machine to qualify for pilot's license, March 4.*

Mrs. Ed Duebler

Helena, Montana, party of the second part, Witnesseth:

"The party of the first part agrees to sell and deliver to the party of the second part, and party of the second part hereby agrees to purchase of party of the first part one Model 'E' Curtiss Aeroplane equipped with a Model 'O' eight-cylinder 75 H.P. motor, the same being a second hand machine in good order, at a price of Four Thousand Five Hundred Dollars (\$4500) F.O.B. San Diego, California, to be paid for as follows:

"Five Hundred Dollars of the purchase price to be paid down on the execution hereof, which amount is hereby acknowledged by party of the first part, subject to all conditions in a certain contract for training entered into between The Curtiss Aeroplane Co., party of the first part and T. T. Maroney, party of the second part on the 24th day of January, A.D. 1912: Five Hundred Dollars to be wired to the party of the first part upon receipt of this contract by party of the second part: Two Thousand Five Hundred Dollars to be paid upon delivery of the Aeroplane and Motor to party of the second part: and the residue of One Thousand Dollars to be paid by a title note to become due on the 15th day of August, A.D. 1912.

"First party further agrees that if within ninety [sic] from the 29th day of May, A.D. 1912, party of the second part decides to purchase a new aeroplane of the same model and power as provided for herein, first party will upon delivery to them of the aeroplane herein sold, in as good condition as when delivered to second party by party of the first part with all transportation and other charges prepaid, replace the machine sale of which is herein provided for with a new machine F.O.B. Hammondsport, N. Y. upon receipt of One Thousand Dollars in addition to all sums and conditions previously mentioned herein.

"Second party agrees not to make any alterations or substitutions of any of the parts of the said Curtiss Aeroplane or of the Motor therein installed, or to duplicate, permit or suffer to be duplicated said aeroplane or any part thereof.

"First party agrees to sell to second party any and all parts of said aeroplane or motor which may at any time be necessary for the repair or maintenance thereof, at regular prices for such parts.

"If second party shall at any time within the period of two years from date of this contract, be sued, covering certain mechanical devices employed in said aeroplane, said party of the first part agrees to defend said second party in such suits.

"First party shall not be liable for any damages, or claims for damages, to any



person or party resulting from the use of said aeroplane by second party, his executors, administrators, heirs or assigns, either upon the ground or in the air, and second party hereby releases first party or its assigns therefrom.

"In Witness Whereof, the parties have subscribed there [sic] names and affixed their seals hereunto, in duplicate, the day and year first above written."

THE CURTISS AEROPLANE CO.,  
by /s/ H. C. Genung (L.C.)  
Vice President and Gen'l Manager  
..... (L.S.)

/s/ G. R. Hall

Witness.

.....  
Witness.

Maroney returned to Montana with his Curtiss airplane in the spring of 1912. It is probable that his flying course in San Diego was included with the purchase price of the airplane from the Curtiss Company. Other pilots who flew in Montana and purchased Curtiss aircraft include Dr. Frank Bell of Billings; R. C. St. Henry of Wibaux, and Monte Rolfe. Newspaper records of Maroney's flying activities include flight operations in Great Falls, Helena and Butte. He distinguished himself at Montana's first air meet in Butte which was held on July 4, 5 and 6, 1912. Scheduled events at this air meet included "daring exhibition flights" by three aviators in three airplanes, and these "fearless aviators" were booked to participate in a race with an automobile piloted by the famous Barney Oldfield. The other two pilot participating in this air meet were early birdmen named Stites and Cooper.<sup>(3)</sup>

The promoters of the air show had a fifty cent admission fee, but the people of Butte were quick to note that they could watch the maneuvers better from outside the fenced-off area than from the seats reserved for the paying customers. The whole show was a failure, both as an exhibition and as a business venture, with Stites and Cooper being unable to get into the air at that altitude. The disposition of the crowd was becoming definitely hostile when Maroney saved the day by making the longest flight ever until then made in Montana in an airplane, flying to Gregson Hot Springs and returning in a non-stop flight of 43 minutes. It was sarcastically pointed out by the news accounts that the two out-of-state pilots received \$1,000 each for their efforts, while the local boy, Maroney, made the only successful flights and received only \$300 for his part of the program.

T. T. Maroney continued to make exhibition flights in Montana. The *Great Falls Tribune* of August 5, 1912, describes his flying from the Great Falls fairgrounds oval, "dressed in a leathern suit and elkskin shoes." Two of the flights in Great Falls were cancelled by the fair judges due to the stiff wind. These judges, Captain Hubbard and Frank B. Brown, forbade Maroney to go up even though he was willing to attempt a flight in the high wind.

Maroney reported to the *Tribune* representative that the 75 hp. motor of his Curtiss airplane was in excellent shape and that in testing, it showed a pulling power of 360 pounds which was 40 pounds more pull than the motor developed in Butte. He explained to the paper representative that this was due to the lower altitude in Great Falls.<sup>(4)</sup>



T. T. Maroney with passenger, flying pontoon airplane.

Mrs. Ed Duebler

The first Great Falls passenger to fly in an airplane was Eddy LaPeyre who was taken up by Maroney from the Black Eagle park. Maroney at this time thrilled both the crowd and the passenger by flying past the spectators with his "Look, Ma!" hands off the controls, evidently a very reckless and daring feat.

The *Helena Independent* reported that Maroney made exhibition flights in Dillon on September 13, 1912, making a cross-country flight to the Poindexter-Orr Ranch, a distance of 11 miles requiring a flying time of 9 minutes. He then returned to the Dillon fairgrounds, having attained an altitude of 4,000 feet. This newspaper account stated that Maroney was a careful and scientific pilot and that he would give exhibition flights in Stanford following the show in Dillon. He flew in Stanford on the Annual Farmers' Day on the 16th, at which time a dinner and ball were given in his honor.<sup>(5)</sup>

On September 28 Maroney, flying at the State Fair, attained a speed of 65 miles per hour over the Helena valley. Louis Hill, who was an aviation enthusiast, stated that Maroney was the best exhibition pilot ever seen in the United States. Maroney continued his exhibition flights in Montana until late in the fall of 1912. He is mentioned in the *Butte Miner* in an article dated March 1, in which it was reported that he circled the Capitol building while the legislature was in session and landed just east of the Capitol. The legislature, in recognition of this daring and scientific flight, passed a resolution conferring on him the title of "Montana's Official Aviator." They also made Maroney an honorary member of the National Guard, subject to command of the governor in case of war. He became at that time Montana's first one-man air force.

Early in 1913 a group of Butte businessmen formed a corporation to promote Maroney's flying activities. This corporation was known as the





*T. T. Maroney at Anaconda, 1914.*

Mrs. Ed Duebler

Montana Aeroplane and Exhibition Company, and a brochure was published for circulation to prospective exhibition flight sponsors. A testimonial stated the qualifications of this Montana aviator, together with a description of the exhibition flights with crowd-drawing features which he was capable of making, including flights of five minutes' duration. It went on to say these exhibitions of airmanship were safe, sane and scientific. The brochure included pictures and newspaper accounts of Maroney's flying activities in Montana during 1912 and 1913.<sup>(6)</sup>

In 1915 Maroney moved his flight operations to Seattle, operating a flying school with a flying boat on Lake Union. While in Seattle he took Bill Boeing, a logging operator, for his first airplane ride. He also taught several early-day Seattle pilots to fly, including Eddie Hubbard and Herb Munter. Hubbard, flying for the Boeing Company, operated the first flying boat on a schedule between Seattle and Vancouver, and Herb Munter later founded West Coast Airlines.<sup>(7)</sup>

T. T. Maroney continued to operate flying boats in the Seattle area and to barnstorm in the northwest through 1916, following which he became a civilian flight instructor and test pilot for the Army Air Corps at Gerstner Field, Shreveport, Louisiana. After World War I Maroney moved to Paso Robles, California, and continued his occupation as a cabinet maker, building several houses in that community. He did some flying in the San Joaquin Valley and flew a pusher airplane for a motion picture which was made at Placerville on the South Fork of the American River in California.

In 1929 Maroney was employed by the Cessna Company. He was killed when hit with a propeller on January 12, 1929 in East St. Louis, Missouri, while accompanying Cessna sales manager Ray Brown.

Maroney is survived by a daughter, Mrs. Ed Deubler of Monterey, California, and a daughter-in-law, Mrs. Ed Maroney of Helena, Montana.<sup>(8)</sup>

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# Clifford B. Prodger

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Clifford B. Prodger was the son of J. H. Prodger, who operated a grain elevator at Fife, Montana, a small rail stop located between Great Falls and Belt. Clifford attended school in Great Falls. At the age of 24 he went to New York where he learned to fly at a school operated by the Beatty Aviation Company at Hemstead, Long Island. When Prodger received his *Fédération Aéronautique Internationale* pilot's license in 1912, he was retained by the Beatty School as a flight instructor.<sup>(1)</sup>

In 1915 Prodger went to England with Beatty, a British naval officer. He instructed as a civilian pilot for the British for about a year, and then was given an assignment as a test pilot for the Hadley-Page Company. In 1916 Prodger established a world's record for carrying 20 passengers to an altitude of 6,000 feet. This was the largest number of passengers ever carried on one airplane at that time. Prodger's assignments included test work for the British government. He was the official test pilot for Hadley-Page, the Blackburn Airplane and Motor Company, and for the British Royal Naval Air Service. He tested some 200 different kinds of aircraft for the British government and was credited at the close of World War I with having more flight time than any other pilot in the British air service.<sup>(2)</sup>

An incident in test flying British aircraft was related by him when he visited in Great Falls in 1919. He told about flying a small British fighter in which the leading edge of the upper wing gave way in a dive at an altitude of 6,000 feet. Part of the wood structure, a lath, had become wedged in the aileron hinge and jammed the controls in an unmanageable position. Prodger stood up in the cockpit with the "joy stick" between his knees and pulled the piece of leading edge material from the aileron hinge. He miraculously regained his seat and then brought the airplane down in a tight left spiral, landing near the airport with his airplane otherwise intact.

Prodger received worldwide attention in 1919 by flying the new Hadley-Page bomber with a record load of 40 passengers and a total gross weight of fourteen tons, or 28,000 pounds. The flight on which he established this record was between Glasgow, Scotland and London, England. The English newspaper story of this event described Prodger as being dressed in "leather coat, helmet and goggles, the chief tester for Hadley-Page, with unflinching eyes, a firm mouth and strongly molded nose, a man without fear, who had flown since 1912!"<sup>(3)</sup>

R. Blackburn, president of the Blackburn Airplane and Motor Company, reported to the press that Prodger flew a Bantam Wasp airplane in the British Air Derby but didn't win due to a motor failure, and that as a test pilot he was second to none.

In reporting the capability of the huge bomber, Prodger stated that it could easily cross the Atlantic and that the development of a wireless



direction finder would make passenger service possible in the very near future, "except for flying in fog." He was scheduled to fly the Atlantic in an attempt to win a purse put up by British newspapers, but he became ill and could not participate in the contest. The Atlantic flight was accomplished by Alcock and Brown, two other British pilots.

Prodger returned to the United States in 1919. He visited in Great Falls in October and then went to California where he demonstrated a British-made airplane to prospective customers in the San Francisco area. Prodger was killed on Sunday, August 22, 1920, at Redwood City while demonstrating a British-made airplane to the Varney Aviation School. Two employees of the school were killed with him.

Newspaper accounts of Prodger's accomplishments mention that he had between four and eight thousand hours flying time, and that he was 32 years of age at the time he was killed. Prodger was buried in Los Angeles where his wife and infant child had recently moved from Montana.<sup>(3)</sup>



*"World's Greatest Aviator," Dr. Frank Bell, 1912.*

Mrs. Frank Bell

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# Dr. Frank Bell

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Dr. Frank Bell, a Billings dentist, did extensive exhibition flying at fairs with a Curtiss pusher airplane in 1913. This was before the capabilities of aircraft and the confidence of the public made a lucrative business of passenger flying and student instruction.

Bell graduated in dentistry from the University of Iowa in 1903. He came to Montana to visit his sister, Mrs. Patenaude of Helena, and liking the country, he set up shop in Billings where he practiced his profession for 50 years.

Dr. Bell married Alice McCormick of Billings in 1905, and they were very active in community affairs, contributing materially to the civic development of Billings. At the age of 32, Dr. Bell contracted tuberculosis, and following recommendations of his doctors, moved to Southern California.

It was in San Diego in 1912 that Bell was attracted to the Curtiss Flying School on North Island. He became a close friend of Glenn Curtiss and other airmen flying there. Being mechanically inclined, he volunteered to assist in the maintenance of the aircraft and engines being used in the school. Bell at this time enrolled in flight training in the Curtiss School. He graduated from the school on December 12, 1912, and won his Fédération Aéronautique Internationale license No. 196 on January 8, 1913. After receiving his pilot's license, Bell instructed for the Curtiss School. One of his first students was the later nationally-known pilot, Bert Balchon.

Bell purchased a Curtiss airplane which had the distinction of being the first aircraft ever flown on pontoons. He replaced the water gear with wheels and shipped his airplane to Billings in crates via railroad express. Here he astonished the natives (and particularly the horses) with his frequent flights



*F. J. Bell starting for the clouds No. 1. Glasgow Fair, 1912.*

Sam Gilluly



from his backyard airport next to his home, the present site of the Billings Deaconess Hospital. Bell found that he could get paid for his exhibition flights, so he hung up his dentist's smock and booked himself with fairs and public meetings not only in many Montana cities, but also in adjoining states where he was a major attraction at county fairs. He filled engagements in South Dakota, Wyoming, Colorado and Idaho.

Frank Bell really enjoyed flying. He had an unquenchable sense of humor and a very likeable personality which contributed to his popularity as a showman. Sitting in the front end of a Curtiss pusher put him in a position to inhale quantities of very fresh air, thus contributing to the improvement of his health.

The author had the pleasure of visiting with Dr. Bell at a meeting of the Montana Pilot's Association in Billings in 1957, shortly before Bell's death. He there related incidents in his pioneer flying experiences, including the outcome of an argument he had with a San Diego pelican over the air space jurisdiction of North Island, together with comments on the mechanical shortcomings of aircraft and power plants at the time he flew.<sup>(2)</sup>

The aircraft controls of that day were considerably different than they are now, the motor running wide open with a reverse operation of the throttle in which an accelerator pedal was held down with the foot in the event the pilot wished to reduce power or idle the engine. The rudder controls were operated by a wheel similar to the operation of the steering wheel in an automobile in turning right or left. The elevator controls were similar to the controls used today by the pilot moving the control column ahead or back for nose up or nose down attitude. The ignition switch was located on the control column under the steering wheel, with start on battery and switch to magneto.

Dr. Bell was credited with the selection of the site of the present, outstanding Billings airport. In 1927 there was considerable controversy over the selection of the site for the development of a municipal airport. One group wished to locate the field between the sugar beet factory and the Northern Pacific depot. Another group, supported by Dr. Bell, proposed to locate the airport on the rimrocks north of Billings, and this is the site which was developed into the airport serving the Billings area today. A third site used extensively during the early 1920's was located on the Hogan ranch west of the city.<sup>(3)</sup>

This pioneer Montana aviator contributed much to the growing public awareness of the usefulness of the airplane in travel throughout the extensive trade areas served by our infrequent population centers. His son, Dr. Norman J. Bell, and Mrs. Frank Bell, have presented to the Montana Aeronautics Commission and the State Historical Society a biography of Bell's activities with a group of early aviation pictures.

Bell's Curtiss airplane was a backyard attraction to Billings youngsters for many years, until it was destroyed as a safety precaution to guard against any attempt to fly by some ambitious and youthful aviator.

The control wheel from this airplane, together with pictures of Dr. Bell, are in the aviation exhibit in the State Historical Museum at Helena.

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# Katherine Stinson

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The featured attraction at the State Fair in Helena in 1913 was a daily exhibition flight by Katherine Stinson. This aviatrix was the fourth woman in the United States to receive an FAI pilot's license, following which she had a very colorful career in exhibition flying.

Katherine, born in Fort Payne, Alabama, in 1891, was a member of the illustrious Stinson flying family which included her brother, Eddie, and her sister, Marjory. While teenagers, the Stinsons built and flew several gliders. Katherine later took flying lessons from Max Lillie at Cicero, Illinois, where she soloed at the age of 21 in July, 1912.<sup>(1)</sup>

Miss Stinson made daily flights at the State Fair, and an additional attraction was incorporated in the carrying of air mail pouches from the fairgrounds, where she would take off, dropping the pouches as she circled the post office in downtown Helena. An official post office was designated on the fairgrounds, and the carrying of mail in her airplane demonstrated the possible use of this means of air mail transportation in years to come, a far-sighted thought by the promoters and by the post office officials.

At the suggestion of A. J. Breitenstein, the fair board secretary, Miss Stinson was sworn in as a post office employee by postmaster George W. Lanstrom. The appointment was approved by Postmaster General Burleson in Washington, D. C., where the route designation number 663002 was issued for this first airmail route in Montana and in the west.<sup>(2)</sup>

Katherine Stinson carried 1,333 postcards and letters on these daily trips



*Katherine Stinson flying at Helena Fair, 1913.*

State Historical Library



to the post office during fair week, and the stamps were cancelled with a special cancellation and sent on their way by rail and stage. These cancellations read, in the circular stamp, "Air Post, Helena, Montana," with the date in the center. The Helena air post cachettes are now valuable collectors' items and if you have one, you are on the way to being a recognized stamp collector.<sup>(2)</sup>

The exhibition flights by this aviatrix at the Helena fair contributed materially to my interest in flying, as this was the first airplane of which I had ever taken much notice. I attended the Fair as a small boy, having won a trip that year for raising the best corn in Custer County on an early version of the program which today is known as the 4-H program. Youngsters from all over the state participated and the winner from each county received a trip to the State Fair.

Several features of the fair and of Helena made a lasting impression on me, including the airplane flights, the Broadwater plunge, and the streetcars.

I was spellbound in watching these airplane flights and seeing the aircraft leave the ground. This phenomenon, contrary to the normal reaction of the laws of physics, seems to motivate undivided attention that cannot be denied. There is an inbred instinct in everyone which rebels at seeing an airplane actually break away from the ground. Having once seen an airplane take off, anyone who happens to be in sight of a runway will stop to watch.

The next time you go to the airport, just watch a group of pilots who may be in conversation, and you will invariably see them stop talking to watch the takeoff of an airplane. After it has become airborne, they will start talking again. The one exception may be the static created by the passing of a well-endowed female.

Katherine Stinson was a petite brunette weighing 101 pounds. After learning to fly, she did exhibition flying at fairs throughout the country in her model "B" Wright biplane. Later she flew in foreign countries. She returned to the United States from Japan in 1917 to volunteer for an assignment in World War I.

Miss Stinson continued her very active flying career, flying airmail between New York and Washington, D. C., for several months on a four-day-per-week schedule. She established several long distance nonstop records, flying a Curtiss JN trainer powered with an OX5 engine, and made a flight from Buffalo, New York to Washington, D. C. Another historic flight was made from San Diego to San Francisco on December 7, 1917, in 9 hours and 10 minutes. A third important flight was from Chicago, Illinois to Binghamton, New York, a distance of 783 miles, in 10 hours. Keeping an OX5 engine running constantly for 10 hours was a major accomplishment in those days.

In 1918 Katherine Stinson went to France as an ambulance driver. Following the armistice, she returned to this country where she was employed by the Navy Department as a draftsman. She later married and moved to Santa Fe, New Mexico, where she resided for many years.

In the history of aviation in this country, Katherine Stinson is recognized not only as a woman pilot, but as one of the best pilots of her time.





*Katherine Stinson with Wright airplane. Helena Fair, 1913.*

State Historical Library



*First air mail carried in Montana by Katherine Stinson in this airplane, 1913.*

State Historical Library



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# Otto Timm

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Otto Timm made his first exhibition flights in Montana at the annual Sidney Street Fair on October 7 and 8, 1915. He at that time lived in Kenmare, North Dakota, but was brought to Sidney by the Sidney Commercial Club “at great expense to the management,” where he thrilled the crowds of spectators with his “daring feats of controlled air maneuvers” in the first tractor-type airplane to be seen in those parts.<sup>(1)</sup>

Timm had built this airplane himself. He was at the time a leading authority in the country on tractor-type aircraft and was then an oldtimer, having built his first airplane, a pusher, in Pennsylvania in 1910, where he was known as the “boy aviator.” Timm operated a pusher airplane out of St. Paul, Minnesota in 1911, powered with a fan-type three cylinder engine of his own design. Shortly thereafter he built a tractor-type airplane with a six cylinder engine. An improved model was subsequently developed. This was the airplane he used for his exhibition flying at the fair in Sidney.

The people of Richland County were so well pleased with Timm’s exhibition flights that they engaged him to fly at the first Richland County Fair which was scheduled to be held in Sidney in September, 1916. Otto, having had the misfortune to wreck his airplane on an exhibition flight at the Iowa state fair that year, had to cancel the engagement. He arranged for a substitute, however, and the aerial exhibitions at the first Richland county fair were made by Baxter Adams, who executed some new flying innovations including the “loop the loop” and flying upside down and sideways. These new stunts had been introduced in Montana by DeLloyd Thompson while flying in Butte the same year, and later at the State Fair in Helena.<sup>(2)</sup>

Otto Timm filled other engagements in Montana. He flew at Harlowton where he was well acquainted with Herm Henrickson, whom he had known in Kenmare. Henrickson later learned to fly and is now one of Montana’s well-known pilots in the Billings area. Timm is still active in aviation in California.

Following the exhibition flights in Montana, Timm became a consulting engineer for many early-day aircraft builders. Otto was also employed as a flight instructor by the army in 1916-1918 at Rockwell Field, North Island, San Diego, California, where he built his own airplane and engine to compete for army contracts for a training airplane. The project was dropped with the signing of the armistice.<sup>(3)</sup>

Timm moved up to Venice, California, then the center of aviation activities in the Los Angeles area, where he did some engineering work for Fisk, an early-day aircraft builder. Here he turned out the fastest OX5 race airplane ever built, which clocked at 137.5 mph. Timm designed, built and flew this little racer in seven weeks, having it ready for entry in air races at





*Otto Timm and Timm pusher airplane, St. Paul, Minnesota, 1911.*

Otto Timm



*Otto Timm and Timm tractor airplane, Sidney (Montana) Exposition, 1915.*

Otto Timm



one of California's pioneer air meets.

Otto Timm became the chief engineer for the Lincoln Standard Company in Lincoln, Nebraska in 1921, where he gave Charlie Lindbergh his first airplane ride. Lindbergh was enrolled in an aviation mechanics course at that time in Lincoln. He then came to Montana as a mechanic, wing walker, and hired hand for Jack "Cupey" Lynch, a barnstormer who flew out of Billings for Bob Westover and later located in Butte.

In Lincoln, Nebraska, Timm designed the Lincoln LS5 airplane which was a biplane of the then-conventional fabric and wood construction. This was the forerunner of several similar designs with steel tubing fuselages in the mid-twenties, such as the Laird, Cessna, Travel Air, Swallow, Waco, Air King, American Eagle, Eagle Rock, Stinson, Spartan, Piteairn, Stearman, Butler, and many others of more limited production and performance.

The OX5 furnished the power, and the pilots of that day the optimism, necessary to lift an astronomical number of tons of wood, steel, fabric and humanity off the ground and into the air. Public interest in aviation was thereby developed with the increased capability of these then-new designs, as indicated by the breakthrough with Lindbergh's flight across the Atlantic, and other long-distance endurance flights of the 'twenties.

Otto Timm during this period was recognized as a versatile aeronautical engineer. He had also established himself as a consultant, specializing in modification work in the rebuilding of existing aircraft for special operations.

As larger aircraft were developed, Timm was frequently called in to redesign and make changes during construction for installation of new and unusual equipment. In the early 1930's he designed and built a twin-engine airplane for short haul and executive operations. This airplane had several new innovations later adopted by other designers and manufacturers, including a high-wing construction with leading edge slots, a tricycle gear with power steering, and brakes on all three wheels. Aircraft later using these included Douglas, Boeing, Aero-Commander and North American.

During World War II Timm designed and produced, in quantity, for the military service a low-wing trainer built of plywood, used extensively for pilot training by contractors and military flight schools. Many pilots now driving 707's and DC8's got their first flight instruction on one of the Timm primary trainers.

In recent years Otto Timm has produced replicas of World War I aircraft for use by the movies. He has also supplied most of the museum aircraft now exhibited in the air museum on the Orange County airport at Santa Ana, California. This museum has preserved a material record of stick and wire aircraft that would otherwise have been lost and obscured in this day of jet flying and celestial rocket operations.

Both Otto Timm and his wife tell us that they feel fortunate to have had the opportunity to be associated with aircraft development and flying through the whole evolution of air travel. Otto has more new ideas today that will undoubtedly be of recognized value in future aircraft developments.

This early-day pilot who introduced flying to the people of eastern Montana, like many others of his time, has contributed much to aviation.

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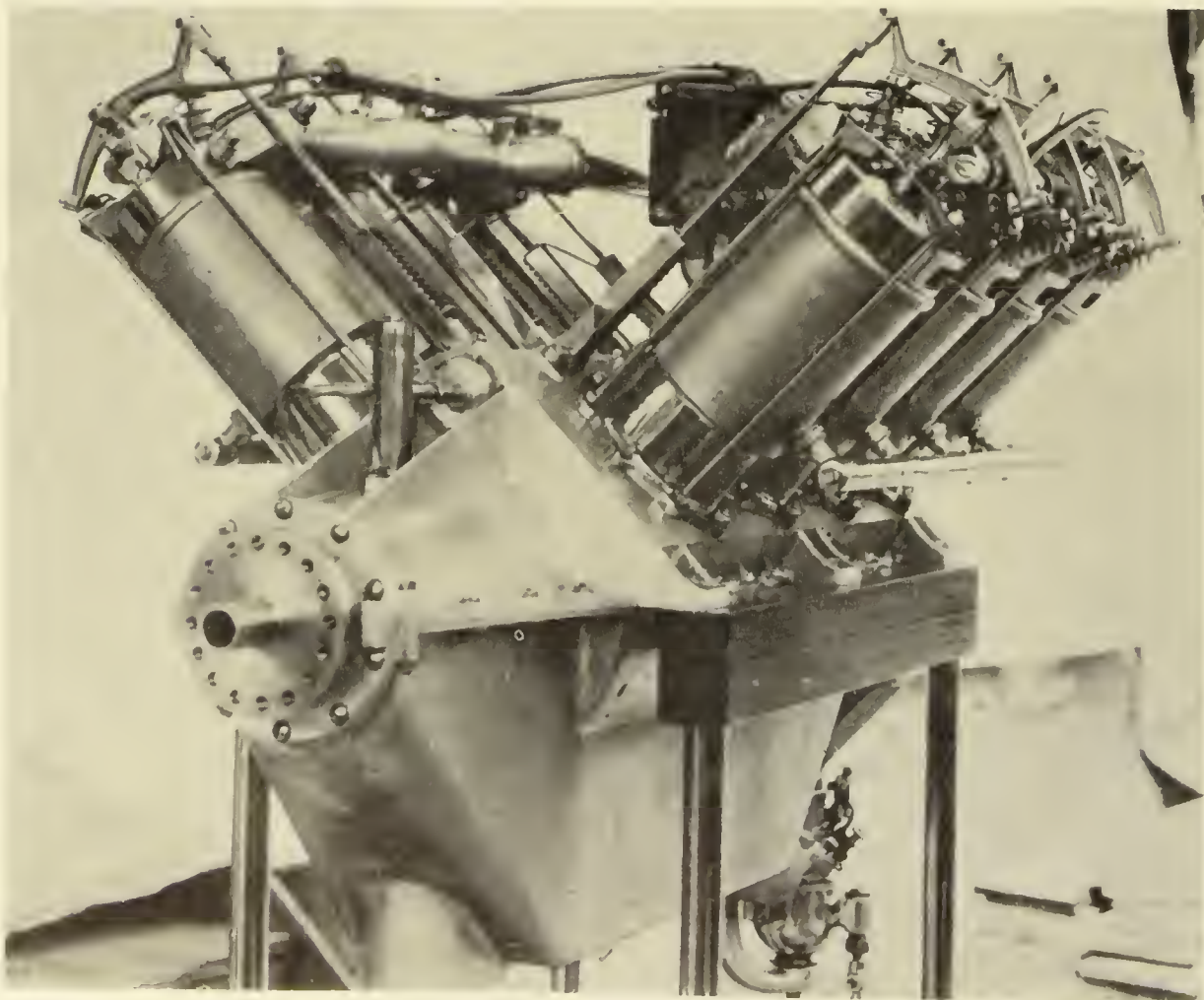
## W. H. "Turk" Minnerly

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"Turk" Minnerly of Missoula is a pioneer Montana pilot who learned to fly in early days, then became a locomotive engineer for the Northern Pacific. He retired in 1960 at the age of 70.

Minnerly was born in Helena in 1890, and attended grade school there. He moved to Missoula where he attended high school and enrolled at the University of Montana. He saw his first airplane when Bud Mars did exhibition flying at the State Fair in Helena in 1910, flying for the Curtiss Exhibition Company. Turk was offered a scholarship in chemistry in his sophomore year with special training at the University of Chicago, but having been bitten by the flying bug, he turned down the scholarship and enrolled for flight training with the Thomas School of Aviation at Bath, New York. He received flight training from an early-day pilot, Walter E. Johnson, at Winegar Field, Bath, and was then employed to fly a Thomas Flying Boat in Florida.

While flying for the Thomas Company (which, incidentally, built the Thomas Morse Scout Trainer of World War I fame) Minnerly taught a Malta boy to fly. His name was Clifford Harmon Cary, who made a name for himself as a pilot and flew a Curtiss Flying Boat on the Mississippi River



*Curtis O motor. (Forerunner of OX5 engine.)*

W. H. Minnerly



as advance man for a showboat which operated between St. Louis and New Orleans. He and Turk had many good times together in the two years Cary was with the showboat. Cary died on December 19, 1915, of pneumonia while living at Tomkinsville, Staten Island, New York.<sup>(1)</sup>

Minnerly landed the first aircraft, a Thomas Flying Boat, at Cape Canaveral, Florida. He barnstormed the alligator country and eastern states for some time. One assignment he remembers vividly was flying passengers and exhibition flying in 1913 at Cambridge Springs, Pennsylvania. The occasion was the centennial commemorating the Dupont Company's freighting gun powder by ox team to Admiral Perry for use in gunboats against the British in the War of 1812. This was the start of the Dupont Company, and that company put on the celebration in 1913.

Turk went to Guatemala in 1916 to fly a French Nieuport for the Guatemalan government. Mrs. Minnerly and their one-year-old son went along. Minnerly said it was at Guatemala City that he learned how altitude influenced the performance of an airplane. He rolled up the Nieuport monoplane and wound up in the hospital. Minnerly was the private pilot for President Estrado Cabrena, and, while recuperating, became a good friend of the commander of the president's guard, one Lt. Miguel Ydigoros y Fuentes, who was later also president of Guatemala.

Turk returned to this country but couldn't get in the air service due to his injuries. So he went to work for Curtiss in the Hammondsport, New York, factory as an OX5 engine test inspector. He was responsible for all engines being test run and delivered to various branches of our armed forces as well as friendly governments. (Incidentally, he inspected and passed the



*White Equipoise.*

W. H. Minnerly



*Bud Cary of Malta, Montana, 1912.*

W. H. Minnerly



*Lincoln Beechey airplane hitting tent, killing two women spectators. New York state, 1912. (From 'Turk' Minnerly collection.)*

W. H. Minnerly





*Thomas Flying Boat, Conesus Lake, New York. 90 hp. Austro-Daimler motor.*

OX5 engine now in the Montana Historical Museum, which was manufactured in 1918. This engine was flown to Montana in a Waco 9 by Earl Vance in 1925, and passed from hand to hand until Ray Woods of Brady retired it and later rebuilt it, donating it to the Montana Aeronautics Commission for a permanent exhibit.)

Minnerly returned to Montana after World War I. He went to work at Missoula for the Northern Pacific Railroad. He also worked for the Texaco Oil Company and used to bring gasoline out to Lonny Brennan and me when we were learning to fly. In 1923 we looked to him as an old timer in the flying business as well as a kind of superman. Believe me, we still do!

Mrs. Minnerly is a pert little lady who was born in Bath, New York. She and Turk knew all the early day pilots including Lincoln Beechey; "Loop the Loop" Art Smith; R. C. St. Henry of Wibaux, Montana, who learned to fly in San Diego in 1912 under George Underwood; J. D. McCurdy, and many others. Turk has a priceless picture album of early day airplanes, including pictures of the "White Equipoise," a twin-engine airplane with an autopilot, built in Bath in 1913 for a visionary Montana inventor named White. This airplane didn't fly, but the promoters who sold stock in Montana evidently did.

One could do a book on Minnerly's picture album, but this is a Montana history. Turk and Mrs. Minnerly are always ready to talk flying; they enjoy their recollections of a most interesting life in early aviation.

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# William G. Ferguson

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“Bill” Ferguson returned to Montana after World War I with a pardonable interest in aviation. He led the organized development of aviation in the state for many years, and may be credited with the initiation of many of Montana’s early flying activities, including the Aero Miles City Club in 1920; National Parks Airways, Montana’s first permanent scheduled air mail service, in 1927; the Montana Pilot’s Association, which came into being in 1936; and the state aviation agency, the Montana Aeronautics Commission, created by the Legislature of Montana in 1945.

Wm. G. Ferguson was born in Adrian, Michigan in 1886. At an early age he spent three years in Germany with his parents, where his father studied at a German university and returned to this country as a professor at Illinois Wesleyan University in Bloomington, Illinois. Bill graduated from the University of Illinois in journalism in 1909. He came to Montana to work for the U. S. Forest Service in Missoula, the Northern Pacific Railway, and then on the editorial staff of the *Great Falls Tribune*, of which he later became editor.<sup>(1)</sup>

Ferguson enlisted in the Army Air Corps in 1917 and received training at Berkeley, March Field, California, and Post Field, Oklahoma. Following his army service he came to Miles City, where he became evening editor of the *Miles City Daily Star* and secretary of the Miles City Commercial Club.

In 1920, Bill took a barnstorming tour with J. W. (Jack) Hesser, who was a World War I pilot living in Butte. These intrepid barnstormers preached the gospel of aviation all along the Northern Montana hi-line, as well as selling low-altitude airplane rides to anyone who had the price. The low-altitude rides were the only kind they had, as the poor old OX5 Jenny just couldn’t get above the ground cushion. Bill even seriously considered trying to promote an airline between Miles City and Jordan. With his unshakeable faith in aviation, he talked flying to everyone at every opportunity, everywhere and anywhere.

It was at this time that I became acquainted with Bill and discussed my problems with him. I had just returned from being turned down by the Army as an aviation cadet, with the understanding that I would never be able to fly because of no depth perception. The flight surgeon had also given me his own theory on why I could never become a pilot — based on evolution. His theory was that certain members of the human race had been developed from the fish family and certain other members from birds. It was his theory that only the people who had evolved from birds would be able to fly. The whole story sounded kind of fishy to me, and I was determined to prove the flight surgeon wrong.

Bill loaned me his ground school textbooks which he had brought home with him from the service. I studied them all during the winter of 1920.





*Bill Ferguson with Army DH4 airplane, powered with Liberty motor.*

Blanche Ferguson



*Art Stephenson and student pilots at Helena airport on golf course. From left: Stephenson, Bill Ferguson, Ed Follensby, Fred Sheriff, unknown, unknown, and Al Stewart.*



*Ferguson on barnstorming tour with OX5 Jenny.*

Blanche Ferguson

Earl Vance, a pioneer barnstorming pilot, had arrived in town, following which he and Bill Ferguson sold aviation to many of the townspeople, with the result that Miles City became the leading aviation center of Montana due to the activities of the Aero Miles City Club.

Bill Ferguson moved to Helena to accept a position as secretary of the Helena Chamber of Commerce. He was associated with public organizations in Helena and in Montana from then on, except for a sojourn to Butte as traffic manager for National Parks Airways, which operated between Salt Lake City and Glacier National Park with headquarters in Butte. This airline, started in 1928, was taken over by Western Airlines in 1937.<sup>(2)</sup>

Ferguson was elected State Commander of the American Legion in 1920. He and Art Stephenson flew an OX5 Jenny from Miles City to Kansas City to the national convention, where they received unusual attention in presenting French Marshall-of-the-Armies Ferdinand Foch with a real live Montana bobcat. This bobcat, captured on Sunday Creek near Miles City, had become as domesticated as any house cat. I remember Bill telling me that when they stopped en route to Kansas City, the bobcat slept in the bed in the hotel with him and Steve. Foch, a guest of the American Legion that year, had been the Commander-in-Chief of the allied army in World War I. He was delighted with the Montana kitty, which he took back to Paris and placed in a zoo.

When Art Stephenson came to Helena and started a flying operation in 1921, Bill used to go on barnstorming trips with him. Ferguson made parachute jumps at Townsend and White Sulphur Springs as part of the come-on show to interest people in taking airplane rides. I remember when Art Stephenson, Brennan and I had the exhibition contract at the county fair in Missoula. I contacted Bill for information on parachute jumping. He wrote me a lengthy letter instructing how to jump and how to pack the parachute. This same old parachute was used for many exhibitions in Montana, first with the Aero Miles City Club, then by Steve and Bill in Helena, and later by Lonny Brennan and myself in Missoula. I believe Steve owned the parachute but we used to borrow it from him from time to time.

Bill was a captain in the headquarters company of the National Guard 163rd infantry in Helena. He also participated in Army reserve activities and was a reserve officer in a Salt Lake City army air unit. He became secretary to the Montana Chamber of Commerce in 1930, and also polished up his aviation experience by taking a refresher course in flying with Red Morrison at the Helena airport.

Bill is credited with the promotion of the tourist travel business in Montana — the Montana Automobile Association and the Pacific Northwest Travel Association. He was very active in, and organized and headed up, the Montana Pilot's Association. It was largely through Bill Ferguson's efforts that legislation was passed in 1945 which created the Montana Aeronautics Commission. He served as a member of that commission until his death in 1952. It is of interest to note that the aims and objectives of the Montana Pilot's Association and the Montana Aeronautics Commission reflect the views and comments on aviation standards and safety by Bill Ferguson, as



released in publicity at the time the Aero Miles City Club was organized.

Bill had a charming personality, seasoned with Scotch-Irish wit. He was a capable and efficient organizer, and I am sure that many people in Montana will long remember him as an accomplished storyteller. Bill's story of the two colored boys who integrated the Blackfoot Indian Reservation was priceless.

Bill Ferguson was a Montanan with a life full of active public service. He had been a leader in aviation development, an ardent golfer, a roller of dice, a pilot, and a very material contributor to the development of the economy of our state.



*Ferguson and Stephenson with bob-kitty en route to Kansas City.*

Blanche Ferguson

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# Forrest H. Longeway

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Forrest H. Longeway was one of Montana's most distinguished pilots in World War I. He continued to fly after the war, first as a barnstormer in Montana and then as a general aviation inspector for the Department of Commerce.

Longeway also served in World War II as a Flight Safety Officer on the staff of General Arnold, later being assigned as operations officer in the air force at Hunter Field, Savannah, Georgia. After World War II, he resumed his duties as a Flight Safety Officer for the Federal Aviation Agency. Longeway has since retired as a colonel from the air force and as an FAA inspector. He now resides near Columbia, South Carolina.

This Montana pilot was raised in Great Falls, where his father was a prominent physician and surgeon, recognized for his early research on Rocky Mountain spotted fever. Forrest attended grade and high school in Great Falls, followed by three years at Shattuck Military Academy. He was enrolled at the State University in Missoula at the time the United States entered World War I, but he left the University to enlist in the Army Air Corps.<sup>(1)</sup>

Longeway received his ground school training at Berkeley, California, and was then assigned to Rockwell Field, San Diego, for flight training. Reporting on January 18, 1918, he received 32 hours 52 minutes of flight instruction on the Curtiss JN4 airplane. Together with 13 other pilots in his class, he was ordered to report at Hoboken, New Jersey, on February 15, 1918, for embarkation to overseas assignment.

Arriving overseas, Lieutenant Longeway was assigned for training on French aircraft. Between April 8 and June 1 of 1918 he received 19 hours and 37 minutes of flight training on two types of Brequet bombers, the 14B2 and the 14E2. On June 26, 1918, he reported to a bomber unit for combat.

It may be noted from the records of this World War I pilot that his complete training as an aviator was received between January 18 and June 26 of the same year with a total flying time of only 52 hours and 35 minutes. It is obvious that the need for combat pilots was imperative. Longeway later commented on the terrifically high loss of life—with a large percentage of the students from the class in which he received primary training being killed in training or in flight operations other than in combat. This same situation prevailed in World War II. The writer, with service in the air force, at that time had occasion to note the heavy losses in training operations with pilots going into combat flying with less than 300 hours of flying time.

This same repetitious situation repeatedly applies to all of the military operations of our country, in which we find ourselves unprepared and our personnel untrained when suddenly called upon to defend our homes and country. It is the apathy inherent in all of us that is reflected by our law-



makers and our peacetime military people who do not profit by past experience and who fail to keep in mind the security in and justification for a strong, active reserve of skilled and trained personnel.

Longeway returned home to Great Falls in 1919. When interviewed on his combat experience, he stated that of the original 14 pilots in his unit completing flight instruction at Rockwell Field, only five got to the front; one became a German prisoner; one was killed in combat; but 9 were killed in accidents relating to training or aircraft operations other than combat.<sup>(2)</sup>

Longeway and his observer flew in a French Brequet bomber powered with a 320 hp. Renault motor. The French bomber units were composed of formations of fifteen aircraft to each *escadrille*, three *escadrilles* and one escort *escadrille* to each *escadre*. The Brequet bomber was quite an airplane. It had bungee (rubber bands) loaded ailerons which dropped at slow speed (giving more lift?) but at the sacrifice of speed, and thus were not fast enough to avoid German Fokker triplanes at altitude. (This variable airfoil is used on many modern aircraft.)

Longeway mentioned one mass-bombing mission of 300 aircraft attacking a concentration of German troops in a woods at Fismes north of Soissons, routing these troops who gave up the attack. The formation dropped 8,000 pounds of bombs on this mission, for which Longeway and his observer received the French *Croix de Guerre*.<sup>(3)</sup>

After several months of combat, Longeway was wounded while bombing a German machine gun emplacement at low level. He and his observer were again decorated, with a division citation and a star for his *Croix de Guerre*.<sup>(4)</sup>



Forrest H. Longeway of  
Great Falls, Montana.

Great Falls Tribune

Discharged from the hospital on February 4, 1919, Longeway returned to this country and was released from active duty on June 2. He arrived home in Great Falls about June 20, 1919, and again became a civilian.

Forrest continued flying, doing barnstorming in Montana, where he became the proud owner of an open cockpit biplane in 1927. This airplane was known as an "Air King," with a reputation of being exceedingly strong, but short on performance.

I remember competing with Longeway while barnstorming at a rodeo in Wolf Point in 1928, at which time Forrest was not too welcome as a competitor. His technique with two passengers was to take off from an alfalfa field we flew from west of town, jumping over the riverbank and settling down over the river which he followed upstream until he climbed high enough to get back over the bank again and return to the field. I viewed this technique with mixed emotions.

Ray Woods of Brady was his ticket salesman, wing puller, mechanic, and, I suspect, also his financial advisor. Later in 1928 Longeway accepted appointment as an inspector for the Department of Commerce. He had an office on the airport in Minneapolis. When I was flying airline in 1930 into Wold-Chamberlain field, he issued my rating for the type and horsepower that applied to the Wasp-powered Buhl sesquiplanes that we then used on the run from Spokane to St. Paul. I remember Longeway commenting that as the airplane had no dual controls he would sign my ticket without a flight check, on the assumption that if I was able to get the airplane there from Spokane and if Nick Mamer would let me fly it, I must be o.k.

At that time there were frequent casualties involving Department of Commerce inspectors who rode with would-be pilots in aircraft, both with and without dual controls.

Longeway was one of the first safety inspectors employed by the U. S. Department of Commerce, working in the Chicago area until World War II, at which time he returned to active duty and was assigned to the Directorate of Flying Safety on General Arnold's staff, headquarters Army Air Force, Army of the United States. I served with him in the same organization. Forrest became a flying safety officer stationed at Mitchell Field, Long Island, New York. He and I used to enjoy getting together for some serious lying, bragging and reminiscing on our flying exploits in Montana.

I used to look forward to visiting with Longeway when he came to our headquarters in Winston-Salem, North Carolina. He seemed to like that beautiful country, and after World War II he again took up his old job as safety inspector for the Department of Commerce, assigned to the office in Savannah, Georgia, where in 1960 he retired from the Air Force as a colonel, and from the FAA as a senior safety agent.

Longeway reverted to his early environment. Until his recent death he lived on the southern version of a Montana ranch near Columbia, South Carolina, where he raised Black Angus cattle. A final letter from him indicated that his primary interests were calves and grandchildren.

This early-day pioneer of a durable nature contributed much to his country and to aviation, both in and out of Montana.





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## George "Jack" Milburn

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Jack Milburn flew on detached service with the French in World War I, later transferring to our Army Air Corps when this country got into the war. Jack was born in Miles City in 1894, where his father was a district judge. He moved to Helena when Judge Milburn became a Supreme Court Justice and graduated from high school in Helena, then attended the State College at Bozeman, majoring in civil engineering.<sup>(1)</sup>

Jack had two brothers, Gene and Paul. Paul Milburn moved to California and went to work for the Douglas Company when Douglas had a very small plant in a motion picture studio in Santa Monica. Paul had charge of purchasing when Douglas first went into the aircraft manufacturing business building the world cruisers. He continued this position until the time of his death following World War II.

Soon after Jack Milburn enlisted in the Army he was sent to France where he trained at the French school at Chateaux Roux. He received 18 hours of dual flight instruction, following which he was issued a French license and pilot's wings. He was transferred back to the 12th Air Squadron with the American Expeditionary Forces and continued flying photo reconnaissance and bombing missions.<sup>(2)</sup>

When interviewed on World War I flying at the N Bar Ranch east of Lewistown, Jack stated that there were other Montana men in the 12th Air Squadron including Ben Harwood, now of Billings. Ben, being considerably shot up, received the Distinguished Service Cross and several French medals. He was later adjutant of the Group which included the 12th Air Squadron.

Another Montana pilot named Patterson was in the 12th, which was in the Group commanded in turn by Billy Mitchell and Colonel Foulois. The American squadron with which Milburn flew was equipped with the French Salmson observation aircraft, which was very popular with our pilots. The Salmson had a ceiling of over 5,000 meters. It was equipped with four guns, two firing through the propeller and two mounted on the rear cockpit. It had a top speed of 135 miles per hour, which was the same speed as the French Spad. Milburn stated that a few squadrons did receive Liberty-powered DH's, which were used for day and night bombing missions. He said the French Salmson had a range of four hours at about 125 miles per hour.



*Jack Milburn with observer, flying for 12th Aero Squadron. French Salmson photo reconnaissance airplane.* Jack Milburn

Other American pilots with whom Milburn flew included the squadron adjutant, Breson, who later was a lawyer in Wichita, Kansas, and Whitey Thomas, who had been an All-American football player. Milburn mentioned B. S. Graham of Oklahoma City, who had the misfortune to crack up in a fog when a flight of 18 aircraft got trapped. A few pilots, including Milburn, reached their destination and the rest got down somehow, with the exception of three who wrecked their airplanes. Miraculously, no one was killed.

Milburn was sent to Germany with a squadron attached to the army of occupation. There he observed many interesting Germany aircraft that were turned over to the Allies. He said he saw a Zeppelin hangar, 750 feet in length, crammed with German aircraft for delivery to the Allies. A lot of our boys took a keen interest in flying these captured enemy airplanes.

Jack recalls that Billy Mitchell had a two-seater Spad built which he used in reconnaissance. Mitchell would fly over the lines early in the morning in this two-seater airplane, with his sergeant, who operated a wireless radio transmitter, reporting back his findings on the German positions; then returning and assigning his squadrons to various targets. Milburn said that Mitchell once flew the Prince of Wales over the German lines in this two-passenger Spad, the only one built and used by the American forces.

The insignia used by the Allies on their aircraft included three concentric circles painted on the wing, with the British insignia being an outer blue circle, within which was a red circle and a white center. The French insignia was a red outer circle with a blue inner circle and a white center. The United States aircraft were marked in the same manner as the British airplanes. Jack mentioned that our troops in training in this country were familiar with a star painted on the wing as the designating symbol of U. S. aircraft, and were inclined to be a bit trigger-happy when they didn't recognize the British, French and U.S. circle insignia in Europe. Jack showed me a colored poster which was dropped by Allied pilots over the lines, telling our boys not to shoot at aircraft with the circle insignia painted on the wings.



It is probable that the Germans dropped posters to our boys telling them not to shoot at their airplanes, either.

It is interesting to note from Jack's comments that many of our observation aircraft were equipped with radio transmitters; however, he stated that he knew of no aircraft equipped with both transmitters and receivers. The wireless developments of that day had not advanced sufficiently to have a practical airborne receiver for general use.

In describing the Salmson airplane, Jack stated that it had a very strong fuselage which gave good protection to the pilot and observer in a crackup. He showed me pictures of an airplane flown by himself before and after a crackup which occurred while he was putting on an exhibition flight at Copeland on the Moisselle River. Jack had a motor failure and cracked up, landing in some trees. He said that Col. Foulois, who had requested him to make the flight, cleared him in the crackup and requested that the squadron CO, Bob Paradise, issue Jack another airplane.

Jack said it was standard procedure for the pilots to paint their girl friends' names on the planes. The airplane he cracked up had the name "Gyp" on the side, whereas the next airplane he was issued had "Gyp II" painted thereon. He didn't explain to me whether this was to identify the second airplane or another girl. Milburn said his flying partner, McCoy, had the letters, "KT" on his airplane. His girl's name was Katy.

It seems that McCoy hailed from Green Bay, Wisconsin, and that he and Milburn did the first aerial mapping of the Moisselle River. They flew at high altitude with the temperature below zero. The radiator of the water-cooled Salmson froze up, cracking the cylinders and causing a forced landing, with Milburn being lucky enough to land on an available airdrome. Another pilot in Milburn's squadron was Preston Creighton of Geraldine, Montana, who, after World War I, flew out of Minneapolis as a civilian pilot. He was later killed while participating in an endurance flight.

Milburn mentioned another incident in which the squadron chaplain and a pilot dropped food to the famed lost battalion. They missed the drop; but the Germans undoubtedly appreciated the thoughtfulness of Allied pilots supplying them with G.I. rations.

After World War I, Jack Milburn returned to this country where he was first employed in the county surveyor's office in Silver Bow County. He then accepted a job as foreman on a ranch located on the Dearborn River. After holding down this job for a time, Jack became manager for the large N Bar Ranch out of Lewistown, a position which he held until his recent retirement. Jack and Mrs. Milburn now live in Billings.

Jack participated in reserve training for 15 years after World War I, signing up with the 329th observation squadron located in Salt Lake City. He took training with the squadron in Salt Lake with later assignments of active duty in San Francisco, San Mateo and Portland. Other pilots who were in this reserve squadron included Art Stephenson, Earl Vance and Bill Ferguson. Other pilots out of Salt Lake City who belonged to the squadrons included Tommy Thompson, Jack Sharpnek, the Nelson brothers, Ray Elsmore, "Butts" Reardon, and Paul Wheatley, who was killed in a crash of



*Jack Milburn and French observer after forced landing.*

Jack Milburn



*Salmson airplane, 12th Aero Squadron, 1918.*

Jack Milburn

a National Parks Airways airplane at Pocatello, Idaho.

The 329th observation squadron went on active duty during World War II with immediate assignment to Europe. It then was transferred to the Pacific where they lost all their airplanes and several members of the squadron in the Pearl Harbor attack by the Japanese. Jack stated that if he had not dropped out of the reserve in 1935, he would probably have seen duty with many of his friends in the service.

Jack Milburn is a staunch supporter of air force activities and aviation in Montana, and is a member of an honorary Air Force organization known as the "Daedalians." He has served as an official in many groups associated with the stock-raising industry, and is recognized as a national authority on range management and ranching.



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# Ben Harwood

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Benjamin P. Harwood was born in Helena, Montana, in 1891. He graduated from the Butte high school in 1909.

Ben comes from a legal family: his father, Judge E. N. Harwood, served on the State Supreme Court in Helena, later practicing law in Butte and Billings. Ben graduated in turn from Yale in 1913, and from Harvard, in law, in 1917.

Ben Harwood served in the Massachusetts National Guard field artillery on the Mexican border in 1916. He went to France with his unit in August of 1917, and there received training with the French as an aerial observer and as an aerial gunner.

Harwood was assigned to the 12th Aero Squadron, flying in Salmson 8 observation aircraft, following which he became liaison officer between French and United States units, and then with Hq.-A.E.F.

Military records show that Benjamin P. Harwood exhibited extraordinary heroism in action near Chateau Thierry, France, on July 5, 1918. He volunteered as a gunner to fly protection for a photo airplane, at which time he engaged several enemy aircraft and, with his pilot, successfully protected the photo airplane, which was thereby able to accomplish the mission.

Harwood was severely wounded in the engagement, but with the pilot was able to return to our lines despite the fact that their airplane had been riddled by enemy fire.

For this engagement Lt. Harwood received citations including the Distinguished Service Cross, the *Croix de Guerre*, the War Medal of the Aero Club of America, and the Purple Heart.

His United States Army Citation reads as follows:

*"First Lieutenant Benjamin P. Harwood for exceptionally meritorious and conspicuous services as observer A. S. France.*

*American Expeditionary Forces*

*"In testimony thereof, and as an expression of appreciation of these services I award him this citation.*

*"Awarded on 19 April 1919.*

(Signed) *John J. Pershing*  
*Commander-in-Chief*

Ben Harwood was then assigned to the staff of the chief of air service G.Hq.-A.E.F. in the executive section. He served in this country in the Division of Military Aeronautics, Washington, D. C., under the direction of Brig. Gen. Wm. Mitchell.

Harwood prepared tactical histories and manuals of the corps artillery as a special assignment. In 1917 and 1919 he drafted for General Mitchell bills to create a separate air force. These bills included (S)80, dated April 4, 1917, and (HB) 16195, dated February 28, 1919. The resulting Billy Mitchell

controversy blocked any further move for a separate air arm at that time.

In February of 1919, Harwood was awarded a rating as "Junior Military Aviator" by direction of the Secretary of War, per section 6 of the Act of Congress of July 24, 1917, and promoted to the rank of major.

Since his military days Ben Harwood has had an illustrious legal career, including county attorney for Yellowstone county; counsel for U. S. Indian Irrigation Service; the State Legislature; District Judge, Thirteenth Judicial District from 1936 to retirement in 1960; and an active private law practice since that time in Billings.

Ben for several years chaired the army advisory committee in the Billings area; he is a member of the governing body of the State Historical Society; and nominated for honored member of that dedicated group of airmen known as the "Daedalians."

Ben has had a continued keen interest in aviation in Montana, serving as an official and committee member in the planning and officiating of Montana's first air meet in Helena in 1927, and as an official in Billings of the National Air Races that same year.

The Billings municipal airport, a leading harbor for aircraft in the northwest, was developed by the people of Yellowstone county through the personal efforts of Ben Harwood. Ben did much to make the people of the Billings area aware of the economic value of the airport and the airlines to the community, with the result that today there are some 250 aircraft based in Billings, which is served by three major airlines.

As you will have noted, Ben Harwood has been a dedicated Montanan and a staunch supporter of aviation.



*Major Ben Harwood*

Dale Galles



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# Earl T. Vance

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Earl Vance was probably Montana's best-known barnstorming pilot, and many people of Montana remember with nostalgic pleasure the thrill of their first airplane ride with this remarkable aviator.

Vance was born in Washington, Indiana, where his father was superintendent of a school for homeless youngsters. Vance followed the usual pattern of grade school and high school. He then enlisted in the Signal Corps in 1917 and received training at Kelly Field, Texas. He was an army flight instructor when hostilities ceased in 1918.

Like many of the pilots turned out in World War I, Earl wanted to keep on flying. He purchased a surplus training airplane with which he started on his way to fame and fortune—the fortune being able to keep on flying and doing the work that he loved.

Earl Vance flew his OX5 Standard up through the midwest from Texas. He had previously worked in the harvest fields of North Dakota on summer vacations, and knowing that country, did very well. He gave threshing crews airplane rides, and flight instruction to embryo pilots.

Vance operated out of Aberdeen, South Dakota, where he gave Clyde Ice his first flight instruction. Clyde operated the first Ford Trimotor in the west, a ten-passenger airplane powered with three Wright 225 hp engines. He is still flying out of Belle Fourche, South Dakota. Vance also gave "Snuffy" Lombrake his first instruction. Lombrake has departed from this world, but his flying in Utah, Arizona and California is legendary to those who knew flying in the 'twenties. "Snuffy" had occasion to be accused of running a one-man airline exclusively for Chinese passengers from south of the border.

Our barnstormer arrived in Miles City in 1920, full of enthusiasm and short of cash. He converted a staunch supporter in the person of a horse doctor named Baldwin. They both benefited in enlarging the territory in which Doc Baldwin could treat livestock, and in which Vance could be assured of eating regularly. Baldwin's use of the airplane soon became the talk of the range country. His enthusiasm was contagious, resulting in several businessmen and stockmen venturing to take a ride, justifying their use of Vance's airplane with sudden emergencies that required their immediate presence somewhere else than where they were.

The old OX5 showed signs of deteriorating and the droopy wings of the Standard required more and more patches. At about this time the "live wire" of the Miles City Chamber of Commerce, Bill Ferguson, took over. The resulting Aero Miles City Club was to become an active and recognized Montana aviation enterprise.

Earl Vance sojourned in Sidney, Montana, while repairing his airplane which had been damaged in a tornado at Richey, and while there, persuaded



*Col. Earl T. Vance, United States Air Force.*

Frank Wiley





Earl Vance and E. E. 'Boo' MacGivra with 'Happy Day,' the first Montana horse to ride in an airplane. Taken at Phillips County Fair, 1927.

Esther Vance



From left: Frank Wiley; Dean Turner; Cecil Shupe; Earl Vance. Hispano-Suiza Standard airplane, Americus, Georgia, 1926.

Frank Wiley

a certain little lady into marrying him. Vance's devious approach: by interesting her father, Billy Combes, in flying. Esther Combes Vance later became a very capable pilot and the first Montana woman to qualify for a commercial pilot's license. She was a charter member of the National Women Pilots' Society, called the "99," the elite aviation group organized by the late Amelia Earhart.<sup>(1)</sup>

Vance did exhibition flying and barnstorming in eastern Montana and he also flew for Dick Ringling of White Sulphur Springs. In the winter of 1925-'26 Vance, accompanied by his wife and Cecil Shupe, his mechanic, worked his way south flying at fairs and carrying passengers. He had tough luck at Americus, Georgia, wrecking the Hisso Standard that he was then operating. Undismayed, he purchased a Waco 9 from Doug Davis (a Georgia flight instructor) and continued on to Orlando, Florida, where he really made hay with the Florida boom at its peak. That winter while working for Douglas in Santa Monica I accepted a deal from Vance to go to Georgia and rebuild the Hisso Standard.

Americus was the location of a World War I army training field and repair center, with 12 hangars full of every conceivable kind of airplane, including DH4's, Jennys, Thomas Morse Scouts, Nieuports, SE5's, Caproni Triplanes, and several other World War I types that I could not identify. This was the surplus airplane parts depot where Charlie Lindbergh purchased his first airplane from Solomon and Wyche, surplus airplane dealers there.

Cecil Shupe, originally of Stanley, North Dakota, came up from Florida to help me rebuild the Hisso Standard. When the airplane was ready to go, Vance and his wife and Dean Turner came to Americus. We started out with a real traveling circus. Turner was an aerial photographer, and still is. He took photos of industrial sites as we traveled from town to town. Vance and I hauled passengers; Shupe and Mrs. Vance drove the car and sold tickets. We worked up through Tennessee, Kentucky and Indiana, stopping at Vance's home town of Washington, Indiana, where we hauled various Vances for two days. We then barnstormed through Wisconsin and into Minneapolis. With Earl Vance's showmanship and experience, we did pretty well.

While in Minneapolis in May, 1926, we saw the inauguration of the Chicago-Minneapolis scheduled airline operation. This airline was sponsored by "Pop" Dickinson, the gray-bearded Chicago grain merchant who also financed many aviation activities and pilots, including the Laird airplanes and "Speed" Holman and Eddie Ballou, two very famous and excellent pilots of that time.

The Chicago-Minneapolis airline was started with a J4 Laird open cockpit airplane, an OX5 Laird airplane, and a Thomas Morse airplane which had been converted from a rotary to an OX5 engine.

The pilots were Billy Brock, Nemo Black and Chet Jacobs of Minot, North Dakota. "Pop" Dickinson sold out his operations to Northwest Airlines, which has now developed into one of our major global airlines and has ably served Montana since 1933.





*National Parks Airways' J5 Stearman airplane.*

F. H. Christensen



*OX5 Fairchild cabin airplane.*

Thomas P. Mathews

A new gimmick which we used through Minnesota and North Dakota was to wire ahead to a Chamber of Commerce, informing them that we were surveying an air route and to immediately wire back the location of their airport. This usually caused considerable confusion because most towns did not have an airport. We would then arrange for the community experts to pick an open field and meet with their (at that time nonexistent) airport and aviation committee. The result was a red carpet treatment with free meals, speeches and lots of publicity. We took time to haul all the paying passengers available, with speeches by Vance sandwiched in between.

We had another stunt that helped get the passengers going in Montana. During rodeos the people were sometimes reluctant to risk their lives while paying out good money for an airplane ride. In this situation we would get a bunch of cowpunchers around the airplane and make them a deal: we would borrow a ten-gallon hat, tear up pieces of paper and write numbers on them, giving a piece of paper to each cowboy. They would all chip in to pay for one stunt ride, which would cost whatever the traffic would bear. Duplicate numbers were placed in the hat and a drawing was made, with the understanding that the crowd would, if necessary, forcibly put the unlucky loser in the airplane to get his ride. This sometimes involved considerable struggle with a few boothcel holes through the fabric of the wing; however, the loser always came down with his reputation made and became our best ticket seller. The rest of the boys seldom had the courage then to refuse an airplane ride. This was good psychology and it usually worked.

Vance located in Great Falls in 1926, where he established an airport and built a hangar north of the city, near where an oil refinery is now located. He developed an expanding business with charter and taxi work, student instruction and aircraft sales. With his own airport and his steel and tile hangar and shop, he had the most modern operation in the west.<sup>(2)</sup>

The Vance Air Service, as it was called, employed several people including Mrs. Vance as bookkeeper and office manager; Everett McMillan, Byron Cooper and Dillard Hamilton as pilots, and several persons in the shop. A Stinson Detroiter was purchased in 1927. This was the first cabin airplane owned in Montana, and many of us were dubious about riding around in a closed-in craft, surrounded by glass, in which you could lose the feel of the wind on your face to indicate skidding, or the sound of the wires to give you your airspeed. Vance also operated the Waco sales agency. Both Stinsons and Wacos were sold to any customer who came along with the proper amount of money.<sup>(3)</sup>

Aircraft sales in the Lindbergh era were surprisingly good. The Vance operation was also stimulated by healthy competition from "Doc" Longeway, who tried to convince the public that the Air King was a better airplane. He was ably backed up in the maintenance of his plane by Ray Woods of Brady. Art Stephenson also set up shop in Great Falls, on what is now the Great Falls International Airport. With the support of Loy Molumby, Tom Busha and others he operated what was known as the Rainbow Flying Service. With these three operators, Great Falls at that time — as now — was a leading aviation center for Montana.



In 1927 Earl Vance initiated the promotion of an airline operation from Great Falls to Billings, and about this time almost every operator in the state had the same idea wherever municipal support could be generated. The outcome was that National Parks Airways came into being, financed by Montana, Idaho and Salt Lake capital and operating between Salt Lake City and Great Falls, with headquarters in Butte.

Vance went to work as a pilot for this airline, which attained a high standard of operating efficiency under the watchful eye of Felix "Chief" Steinle, a tough old top sergeant formerly of Rockwell Field, San Diego. He gained the reputation of having fired every pilot who ever worked for him at least once. There was one exception in Art Stephenson, his top pilot. I don't know what Art had on the Chief, but he had an Indian sign of some kind. They did run a good airline with the highest safety and schedule record in the country. Vance was an excellent airline pilot.

A typical Steinle incident involved several of us. Vance had landed at Pocatello, with a Fokker Super Universal, a six-passenger cabin airplane powered with a Wasp engine. Vance blew a tire and with normal SOP phoned Butte, requesting that a spare wheel with tire be sent south on the next flight. When it arrived, Vance discovered that the wheel was for a Stearman, an open biplane powered with a Wright J5 engine.

Vance phoned Steinle, who told him that they would send the right wheel down and to remain there until it arrived. Two days later the wheel still had not arrived. Vance again phoned Steinle, this time in the evening at his home. It so happened that the Chief was taking a bath and was somewhat irritated at having to get out of the tub, dripping wet, to answer the phone. Vance attempted to tell him that he had not received the wheel and was still in Pocatello, whereupon the Chief told him that he had his orders and hung up the phone. Vance, being of a similar volatile nature, immediately called back, telling the Chief he couldn't hang up on him that way. The Chief demonstrated that he could.

Eventually Vance got to Butte. Being an accomplished typist, he sat downstairs in the operations office and wrote the Chief a two-page letter to the effect that it was discourteous to hang up on him and that he was an American citizen, and so forth. The Chief called him upstairs and fired him with no further preliminaries or explanation.

It so happened that I was running a flight operation in Miles City at this time, but I was a reserve pilot for National Parks Airways. The Chief phoned and asked if I could be to work the next morning. I arrived in Butte via the Northern Pacific railway and, sensing that something was wrong, contacted Bill Ferguson, who was at that time traffic manager for National Parks Airways. Bill related the whole story to me. He and I went up to Vance's room at the Finlen Hotel, giving him a good fatherly talk. He agreed to go with us out to see the Chief and to apologize for losing his temper. Both Steinle and Vance had cooled off by that time, and each admitted his contribution to the misunderstanding. Friendly relations were re-established all the way around over a quart of bourbon which the Chief bought, while I returned to Miles City to resume my local flight operations.

Another incident I remember in this early-day airline operation was when I was deadheading on a schedule flight north out of Salt Lake in a Fokker with Hank Hollenbeek, a former Navy pilot. National Parks had just installed radio equipment, the static from which was quite annoying. Hank took off, and as we approached Ogden, he put his headphones on to check the radio. Giving me a startled look he took the headphones off again and turned the airplane around. When I inquired as to the difficulty, he replied, "My God, we forgot the mail!"

We flew back to Salt Lake and as we taxied up to the hangar, we could see Chief Steinle hopping up and down in front of the hangar. Hank advised me to keep a very serious look on my face. We both jumped out, picked up the two small mail sacks which were all the load we had on this northbound flight, and made an immediate departure. (I well remember the National Parks boys airmailing, with their own money, telephone books stolen from their hotel rooms to help keep the poundage up in those economically precarious days of early airmail subsidy.)

With the cancellation of the airmail contracts in 1932, Vaneer purchased an Autogyro. He used it to advertise Great Falls Beer to the natives of Montana by towing a sign as well as hauling passengers at fairs and rodeos all over the state. Keeping this machine right side up proved to be a difficult problem. It had four big rotor blades, each of which cost \$1200.

Vaneer tipped the Autogyro over at a fair in Lewistown. He wrote me that as it went over all he could think of was, "Twelve hundred bucks!" "Twelve hundred bucks!" "Twelve hundred bucks!" as each rotor in slow motion hit the ground. Such were the trials and tribulations of a person dedicated to early aviation.

Later Vaneer barnstormed his Autogyro all over the United States. I spotted him one day late in December, 1933, carrying passengers out of a schoolyard in Yuma, Arizona.

Accompanied by my wife, I was ferrying a Fairchild 24 from the factory at Hagerstown, Maryland, to Los Angeles for Norman Larson. When I spotted Vaneer we stopped over in Yuma and really caught up on all our hangar flying, while our wives reviewed their hectic experiences, being tied to a couple of aviation buffs. My wife used to say, "Chicken one day and feathers the next."

About this time the Agriculture Adjustment Administration (AAA) came along in the alphabet soup and Vaneer put in several years doing aerial mapping for Wallace Aerial Service of Spokane, Washington. This company operated five crews using Fairchild 71 aircraft. The "71" was a faithful old bird designed for high altitude. It flew nose low up to 18,000 feet, at which altitude it leveled off. Earl was recognized as one of the top mapping pilots in the United States by the laboratory boys (AAA) who checked the precision of photo work in processing the film for soil and land maps. Contract tolerances were close, with a requirement of 15% of side overlap on pictures, 60% forward overlap, and a limit of error of 5% and 20% respectively. I remember once when Vaneer couldn't get to the scale altitude of 24,000 feet for some Forest Service work in the Absarokee mountains. He took his pictures





*Pitcairn Autogyro.*

Esther Vance

as best he could, then came in a bit punchy from high altitude fatigue. When the pictures were developed and calibrated, it showed that he had been flying at 29,000 feet. His altimeter had frozen up at 21,000 feet indicated. This was pretty good performance for the old "71" and Vance, too, before the advent of oxygen masks and high or low pressure oxygen systems. (We used to get our oxygen via a pipe stem and a rubber hose from the tank.)

Earl Vance was a true individualist. He later operated his own Fairchild camera ship which was brought to Montana by R. F. Kitchingman, a mapping pilot for Aero Service Corporation of Philadelphia. When the contract was finished, "Kitch" left the airplane in Miles City, bought himself a five-gallon hat, and became a Montanan.

Vance went to work for Bob Johnson in Missoula in 1939 as a flight instructor in the first civil pilot training program. He gave several World War II pilots their first flight instruction there before he was called back to active duty. He was first stationed at Gowan Field, Boise, Idaho, in 1940 as the base operations officer. He was promoted rapidly to a brigadier colonel and served as base commander at several air bases including Walla Walla, Washington, Topeka, Kansas, and Alexandria, Louisiana. He was a good liaison officer in dealing with civilian contractors and municipal representatives. But he didn't take kindly to flying only a desk.

General Sinclair Street was commander of the Second Air Force in Colorado Springs in 1943 when I was on temporary duty there with headquarters army air forces, engaged in setting up search and rescue operations in the four numbered air forces in the continental United States.

General Street was an old-time pilot who had taken a flight of DH's from New York to Alaska in 1920. He talked our language, and at my recommendation, he assigned Colonel Earl Vance as Commander of the Second Air Force Search and Rescue Unit. Vance was transferred from Alexandria, Louisiana, to Colorado Springs, where he very ably directed search and rescue operations in the Rocky Mountain area.

While playing badminton at the Broadmoor Hotel in 1944, he was taken with a sudden heart attack and died. He is buried at Sidney, Montana.

Mrs. Earl Vance lives in Missoula, Montana, where she moved after the death of Colonel Vance, and where she was employed at the registrar's office at the University of Montana.

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## Esther Combes Vance

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This diminutive lady of Sidney, Montana, inherited her father's interest in aviation and, with typical feminine instinct, was also interested in aviators.

Esther graduated from the University of Washington in 1925, majoring in physical education; she then returned home to Sidney, where she met Earl Vance who, at that time, was Montana's best-known aviation barnstormer.

Vance, being quick to note the advantage of a 96-pound wife as an economical accessory to the always overloaded airplanes of that time, made the most of a good thing. He sold Esther Combes on the bright and glittering future of being an aviator's wife. Earl and Esther were married later in the year and incorporated their honeymoon with a barnstorming tour to points between Montana and Florida. In Florida they had a profitable winter, giving prospective purchasers an aerial view of the Florida real estate which was being offered for sale by the natives.

I joined the Vance barnstorming team at Americus, Georgia, in the spring of 1926. We flew north from town to town with two airplanes, carrying passengers for rides and for whatever fare the traffic would bear (long rides, \$5.00; short rides, \$2.50).

Esther Vance was business manager and treasurer of the organization, being the solvent member, having acquired a \$50 gold piece in the balmy Florida operation. There were two occasions on the way north when we borrowed the gold piece to finance the purchase of food and fuel. We kept this insurance premium paid up, as we always gave Esther a new gold coin with the first net gains.

Esther Vance accompanied her husband on several years of barnstorming flying, during which she acquired a lot of flying experience. She was a very capable pilot at the time she acquired her commercial license in 1928. Esther was Montana's first licensed commercial woman pilot.

When the Vances opened their fixed-base flight operation in Great Falls in 1927, Esther was an active pilot. She ran the office of the Vance Air Service, located on the airport north of the city.

Esther Combes Vance is a charter member of the national woman's pilot organization known as the "99's". This female pilots' society was headed by Amelia Earhart and incorporated in New York on January 1, 1930. Eligibility for membership required that a member must be a woman pilot holding a pilot's license issued by the Department of Commerce. There were only 99 charter members of this distinguished organization.

The "99's" organization of women pilots is indicative of the interest of many women in becoming pilots. In Montana, by 1930, there were several pioneering ladies who had taken flight instruction and learned to fly.





*Esther Vance, charter member of "99's."*

Esther Vance

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# Bert Walker

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Bert Walker was born and raised in Baldwin, Wisconsin, where he graduated from high school. He then attended St. Paul College where he graduated in law. Coming west to Montana, Bert was employed as an attorney by the Lewistown firm of Belden and DeKalb. He enlisted in the army and received flight training in 1917 at Kelly Field, Texas, following which he was a flight instructor. After World War I, Walker returned to Lewistown where he was clerk of the court and a practicing attorney.<sup>(1)</sup>

In 1928 a group of Lewistown people including Bill Weiderman, Charlie Young and Elmer Olson purchased an American Eagle airplane and Bert gave them flight instruction, also instructing other students and operating a flight service in Lewistown. The airport which was started by Harrison Green, a Lewistown banker, was located immediately north of the present field. It included a north-south runway and a northwest-southeast runway. There was a neat stone hangar located on the field.

I remember flying into Lewistown in the early 'thirties with a Stinson airplane, late in the fall, and circling the town for about an hour while I slow-ran the motor. Forced down by engine failure in a wheat field near Denton, I found I had to install a new piston in a cylinder. Bert was quite worried and somewhat put out, as he had thought I couldn't find the airport and was a stranger circling the town. He had been trying to signal me down by waving a blanket while I circled.

Bert was an excellent pilot. He was also a rigid taskmaster in giving flight instruction. Most of Bert's students turned out to be good pilots if they had the fortitude to stay with it while he administered their dual instruction.

Bert ran an excellent flight training school at Lewistown during the veteran pilot training program. He was later employed by the Johnson Flying Service of Missoula, and then continued his operation in Lewistown, engaging in student flying and general aviation activities. Bert Walker was a recognized marksman. He had a good gun collection and was a member of several rifle teams, participating in matches both in Montana and out of state. He loved to hunt, and each fall used to fly into a meadow on the head of the Judith River, camping there for several days and flying out his game.

Carl Schirmer and I once visited Bert in Lewistown and were his dinner guests at a night club about three miles out of the city. It was late in the fall and a cold night. When we came out after dinner, Bert had difficulty starting his car. Schirmer and I pushed the car until it started and Bert never looked back — he kept right on driving to town. We walked to town and enjoyed it, agreeing that it was just what we needed, but somewhat puzzled over Bert's out of character sense of humor in driving off and leaving us. The next morning Bert picked us up at the hotel, very apologetic, saying that he didn't mean to leave us afoot but after the car started, he just forgot that anyone



was with him and went home and went to bed. He was somewhat eccentric, but a kind and gentle person, well liked by those who understood him.

I remember an incident in Bert's flying in which he and a stockman named Frazer were herding horses in an isolated area near Winnett. The Piper J3 they were flying stuck a wing in the ground, badly injuring both Bert and the rancher. Bert spent several months recovering, following which I visited him in Lewistown and asked him to fly with me in the Aeronautics Commission airplane out to the N Bar Ranch to visit Jack Milburn. Bert enjoyed the flight and I made him fly both ways.

When Walker and I flew out to the N Bar Ranch, Penn Stohr went along in a Cessna 120. When we departed from the ranch I saw an unusual phenomenon of this particular kind of airplane. The field from which we flew was later developed into an excellent landing strip; however at the time of this trip the whole area was covered with buffalo grass, which is common to our prairie grazing lands. This bunch grass is quite bumpy to aircraft with wheels of small diameter.

We took off first with the Stinson and then Penn took off with the Cessna, which made a takeoff run several times longer than should have been required. When we got back to Lewistown we discussed this matter, and Penn was aware of the same characteristic in a Cessna airplane that I had previously observed — that with the bedspring landing gear of which Cessna is so proud, you can shake all the lift out of the wing on a rough field takeoff. It seems that when the wings oscillate from the cadence of the vibration set up by the flexible gear on a rough field, the airflow is broken up over the top of the wing, to the point where very little lift can be generated. Some aerodynamics engineer might not agree with this, but it was a good thing to keep in mind if you were flying a Cessna on a rough field takeoff in those days.

This trip renewed Bert's interest in flying. He continued to fly actively, later doing flight instruction for the Johnson Flying Service in Missoula, and then being employed by Homer Holman of the Holman Flying Service in Great Falls.

Bert Walker died of a heart attack in Great Falls in 1960, terminating a flying career of some 43 years. There are many pilots in Montana who will long remember Bert as their instructor.



*Frank Wiley and Taper-wing Stinson.*

Frank Wiley

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# Rolland/Merrill Riddick

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Two Lewistown boys, Rolland and Merrill Riddick, sons of Congressman Carl W. Riddick, were early volunteers for aviation assignments in World War I. Rolland completed flight training and went to Europe as a bomber pilot. After the war, he flew the latest types of Martin twin engine Liberty-powered aircraft with two-ton bomb capability and long range, as reported by his father in a news release.

Merrill Riddick, obviously an individualist and an exceptional pilot, was based at Memphis, Tennessee, as a flight instructor. There he put in many flying hours and acquired a background of valuable flying experience. When flight training was terminated early in 1919, Merrill went to New York as one of a group of pilots selected to fly on a schedule run between New York and Washington carrying airmail. These pilots established quite a record, completing 52 flights during the month of August with an average load each way of over 300 pounds, and an average time of 2 hours and 25 minutes. Riddick distinguished himself by setting a record for the run of less than 2 hours, admittedly with a tail wind.<sup>(1)</sup>

We next hear of Merrill in 1921 when he shook up Washington by carrying passengers from a vacant lot adjacent to Massachusetts Avenue. It seems that he purchased a Hispano-Suiza Standard from the Dayton Wright Company of Dayton, Ohio, for \$3,000. Riddick took delivery of this airplane from a stockpile of surplus aircraft in Texas. He flew up to Chicago, trading rides for the necessities of life, including gasoline, meals and lodging, and arrived there with a good tan and \$2 in his pocket. This was a situation common to many pilots released from service in World War I and, I might say, duplicated after World War II. These boys had one asset that did a lot to develop our aviation industry — that was a love for flying that dominated the logic of the obvious impracticality of making money, in the near future, in the flying business. It is fortunate that some other people with money contributed to encouraging them to continue the development of this means of travel.

Riddick left Chicago one bright, sunny morning with 8 gallons of gas in his tank, landed at Gary, found a victim, and separated him from \$3.50 in advance with which he bought some gasoline. The next stop was Valparaiso, where he collected \$5.00. Riddick went on to Hamlet, Indiana, where he took up two men at \$5.00 each. At Monroeville he hit the jackpot, carrying 16 people. He took on a full tank of gasoline and a real meal, making it into Kenton, Ohio, where he again gassed up. Our barnstormer RON'd with an airminded farmer near Old Concord, Pennsylvania. This was in the era and area of feather beds.

Our fine-feathered friend at this time wouldn't have traded places with anyone; however, with a yen to visit his Congressman father and his mother





*Hispano-Suiza Standard airplane.*

Sue Follensby



*Group of World War I pilots at reunion at Great Falls' Malmstrom Air Force Base. Front row, from left: Merrill Riddick, Art Wilson, Bill Belzer. Back row: 'Kitch' Kitchingman, Howard Johnson, George (Jack) Milburn, George Campbell.*

Eva Cody

in Washington, he took off through West Virginia on this pay-as-you-go junket, arriving in Washington on a bright, quiet Sunday afternoon. He set down in that vacant lot adjacent to Massachusetts Avenue, near the home of his parents who lived at 3011 Dent Place Northwest.

Merrill arrived home where he caught up on his visiting and eating, and then invited his mother to go for a ride. She, like most pilot's mothers, had unlimited faith in her son's flying ability. She took her first airplane ride, commuting, you might say, to Bolling Field. There, to the consternation of the base C.O., Riddick decided to tie up his decrepit Standard. If you ever flew a "Hisso" Standard, you know that by now he had acquired a few blowing valves and had lost quite a few revs. So to avoid any official order to leave Bolling, Riddick pulled the engine and took it into town for an overhaul.<sup>(2)</sup>

It may be remembered too, that army regulations pertaining to flying were very few, and civilian regulations were nonexistent. The account of negotiations between the Base Commander, Maj. M. F. Scanlon, and the Chief of Police, Maj. Harry Gessford, as to whose jurisdiction Riddick came under, was hilarious. The result was that nothing was done to stop his carrying passengers in, over or around Washington.

Riddick had by this time become an experienced, capable barnstormer. He commented that the best way to find out if there were potential customers in a town was to make several passes over the community, flying very low so that he could see the people. If they all ran out of their houses into the street, it indicated an interest in aviation and probability of a goodly number of paying customers. Congressman Riddick reported that his son made more money than a Congressman did.

Riddick later showed up in Montana and flew some with Perry Moore in Two Dot. He attended a reunion of World War I pilots at Malmstrom Air Force Base in Great Falls in 1960, and it is believed he is now in the mining or stock business in the Phillipsburg area.

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## *'Around the Rim' Flight*

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We frequently hear comment on the hazards involved in flying early-day aircraft, leading to the assumption by many people that World War I airplanes were flimsy contraptions made of wood and fabric and held together by baling wire. This, however, was not the case.

By the end of World War I, aircraft design and engine development had progressed to a remarkable degree of efficiency, and the major problem in aircraft operations was a matter of know-how.

I was sitting in a history class at the Custer County High School in 1919, on a warm fall day, gazing out of the window with characteristic inattention, when I became aware of an unusual sound, which could be identified only





*Army Air Corps Martin bomber, powered with two 400 hp. Liberty engines. Elmer Schneider*

as coming from a high-powered airplane engine. A huge plane flew low over our town of Miles City and the history class became uncontrollable as we all rushed to the window to see this unusual sight of a large, twin-engine Martin bomber flying over the city. The airplane, powered with two Liberty engines, descended west of the city, landing in an open field near Fort Keogh.

The bomber was commanded by Colonel Hartz, a former cavalry officer who had been stationed at Fort Keogh. His crew included two lieutenants, L. A. Smith and E. E. Harmon, and two sergeants, John Harding and Jeremiah Tobias.

The airplane was on a flight designated by the army as the “around the rim” flight, a remarkable project in which this airplane and crew covered 10,400 miles of flying in ten weeks, flying completely around the borders of our country.<sup>(1)</sup>

This World War I airplane landed at Miles City on September 22, 1919 and, departing from there on the 23rd, it was flown to Billings, a distance of about 140 miles, in 116 minutes. Other stops included on the Montana itinerary were Helena and Missoula, with the aircraft landing at Fort Harrison and Fort Missoula.

The tour, preceded by careful planning, including the selection of suitable landing sites and arrangements for refueling, did much to stimulate public awareness of, and interest in, the capabilities of the airplane as a medium of transportation.

It also stimulated my interest in learning to fly.



*Air freight to forest areas.*

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## *Aerial Forest Patrol*

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The use of aircraft in the control of forest fires in cargo dropping, smoke jumping and distribution of chemicals has been brought about by procedures envisioned some fifty years ago by an early Montana state forester named H. C. Van Hook.

In 1916 Van Hook recommended to the State Legislature that a two-seater airplane be purchased for use in the patrol and protection of forest lands. He stated that one airplane could do the work of forty men on foot acting as lookouts.<sup>(1)</sup>

Montana legislators jokingly suggested that a sprinkling can be attached to the rear of the airplane to “douse the incipient blazes.” They refused to consider Van Hook’s request seriously, little knowing that his idea would become a reality.

A national forest examiner, John McLaren, while on an inspection tour in Montana in 1918, advised that fire prevention would be far more effective when aircraft became available after the war.<sup>(2)</sup>

In 1919 Major Albert D. Smith, who was assigned to the California division of the U. S. Forest Service, made a survey by airplane of the western states to select suitable sites for landing fields in forest areas. Major Smith surveyed Montana forests in the fall of that year, flying a DH4 Liberty-powered airplane from Helena to Butte in forty minutes. He was accompanied by his mechanic, Sgt. R. B. Blant.<sup>(3)</sup>

The U. S. Forest Service carried out forest patrol operations in Oregon





*Zenith airplane. A. A. Bennett and Bob Johnson of Big Prairie, Bob Marshall Wilderness area.*

Bob Johnson



*Johnson Flying Service Ford Trimotors.*

Bob Johnson

and Washington in 1919, and then planned an extensive operation for patrol of all western states, including the use of 90 airplanes. There were to be 18 aircraft stationed in Montana, with twelve at Missoula and six at Helena.<sup>(4)</sup>

Congress shot the program down and instead assigned five squadrons of cavalry to watch for forest fires. It was not until 1925 that Congress appropriated money for aerial forest patrol to watch for forest fires in Montana, and the use of aircraft that year proved to be very successful.<sup>(5)</sup>

During the fire season the Montana program was directed by Howard R. Flint of the Forest Service, with patrols over forest areas in Montana and northern Idaho. These patrols involved 398 hours of flying time, with aircraft covering 34,000 miles, and using 8,000 gallons of gasoline on 180 missions.<sup>(6)</sup>

There were no accidents. Aerial forest fire patrol operations from that time on have been recognized as a proven and required part of fire control in forest areas.

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# Harold Jack "Cupey" Lynch

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Jack "Cupey" Lynch learned to fly in Lyndale, Ohio, in 1912. His first airplane was a Vickers Monoplane powered with a two-cycle, four-cylinder Roberts motor. Lynch later flew a Curtiss Pusher. In it, he joined the ranks of the exhibition pilots such as Bud Mars, Lincoln Beechey, Jimmy Ward and Archie Hoxey.<sup>(1)</sup>

Lynch had served in World War I as a flight instructor. He came to Montana in 1920 as a barnstormer, flying a Lincoln Standard airplane.

Lynch flew out of Billings and Butte, and Charlie Lindbergh did parachute jumps for him when he was barnstorming. Lynch gave Lindbergh flight instruction, and taught several other Montana pilots to fly. He and "Shorty" Reese flew together in 1920, and both of them then associated in organizing a flying company with operations in Billings and Butte.<sup>(2)</sup>

After barnstorming most of the state in the early 'twenties, Lynch located in Butte, at which time he and Reese became associated with several organized flying activities, one of which was the Inland Empire Aero Training Corporation, organized in Billings in 1919. This company was incorporated for the purpose of training pilots, carrying passengers, and selling airplanes and parts, with operations in both Billings and Butte. The plan was to eventually link all Montana towns which had landing fields with a passenger and express service.

The Inland Empire Aero Training Corporation was headed by Jack W. Hesser as president, with A. B. Schmidt as secretary, L. W. Lamb as treasurer, and L. G. Reese as manager. Pilots for the company included Reese, Hesser and Lynch, and their rates for transportation were based on a charge of 50c per mile.<sup>(3)</sup>

Publicity releases through newspapers in February of 1920 stated that the first airplane had been delivered to Butte, and that it was planned to operate a scheduled air service between Butte, Helena, and Great Falls. It was also planned to conduct flights between Livingston and Yellowstone Park during the tourist season.<sup>(4)</sup>

The Inland Empire Aero Training Corporation was agent for Curtiss aircraft. Their ambitious plans included the purchase of a trimotor airplane being designed by Curtiss, and designated the Curtiss Eagle. This airplane, to be powered with three Curtiss K6, 150 hp. engines, would travel at the high speed of 107 miles per hour. It was stated that the plane could be flown with only one or two of its engines operating.

The fuselage was to be an enclosed, limousine body fitted with eight wicker-upholstered chairs in two rows, with an aisle between. The dome windows were to be made of light triplex unbreakable glass and curved celluloid.<sup>(5)</sup>

The new airplane to be used by the Inland Empire Aero Training Cor-





*'Cupey' Lynch and Charles Lindbergh.*

Helena FAA



*'Cupey' Lynch and OX5 Jenny.*

Sue Follensby



*M-1 Ryan airplane.*

Mrs. Agnes Robinson

poration would weigh 7,500 pounds, and have a useful load of 2,400 pounds. It was to be painted dark brown and trimmed in yellow, with an eagle's beak on the front and landing gear resembling claws — purely a peacetime flying machine, designed and built for cross-country transportation, which was expected to flourish that year (1920).

Other people associated with this early flying company in Montana included S. W. Rankin and John Farrell of Red Lodge, and Theodore B. Stutzman.

Another airline venture with which Jack Lynch was associated was the Northwest Air Transport Company, organized in 1927 by a group of Butte and Chicago businessmen, including N. C. Smith and H. W. Cherry of Chicago, as well as Jack Lynch and several other businessmen from Butte. The first airplane purchased by this company was a Ryan M1. It was delivered to Butte in the summer of 1927 by George Allen, who afterwards flew out of Butte for the company.

Pilots and air-minded people in many Montana communities in the 'twenties had a keen awareness of the potential of air travel between communities. The Lindbergh flight in the spring of 1927 greatly stimulated public interest in flying, with plans for airline operations forming up in the Montana cities of Great Falls, Miles City, Billings, Helena and Butte.

Actual scheduled airline operations materialized with the initiation of scheduled service by National Parks Airlines in 1928, between Salt Lake, Great Falls and Glacier Park, with stops at the Montana cities of Dillon, Butte, Helena and Great Falls. Jack Lynch continued his flight operations in Butte, teaching Bert Mooney to fly and being associated with him in flying out of Butte.

In 1929 Lynch became the personal pilot of W. A. Clark, the Butte



mining magnate, who in 1930 purchased a Buhl Air Sedan powered with a Pratt and Whitney Hornet motor of 550 hp. Clark also purchased a J5 Stearman. The Pratt and Whitney-powered Buhl, an eight-passenger sesquiplane with a large, comfortable cabin, was an excellent machine for its day. The airplane was of high performance and ruggedly constructed, with a very large upper wing and a small, tapered lower wing which was incorporated with the landing gear structure.

Lynch spent the winter of 1929 in the Los Angeles area where the Clark family had extensive interests. Here he taught W. A. Clark, Jr. to fly. He also operated both the Buhl and Stearman airplanes from Rogers airport on Angeles Mesa Drive, and from Clover Field in Santa Monica. W. A. Clark, Jr. spent some of his winters in Arizona. He and Jack were killed in the Stearman airplane while Clark was taking instrument flight instruction.

The Buhl eight-passenger airplane was sold to a company in Los Angeles which made unique alterations in the fuselage structure, incorporating passenger seats suspended on gimbals — all hooked to a lever which the pilot could pull — causing the seats to swing outside of the fuselage and then be released with a parachute on each seat. The idea was to develop an airline plane in which the pilot, in an emergency, could drop all of his passengers and then bail out himself. A real attractive device which, if incorporated in airline aircraft, would have resulted in a negative stimulation of air travel by a very limited number of people.

In the barnstorming days there was a characteristic fellowship between pilots, often resulting in pranks played for the purpose of stimulating surprise in the victim.

Lonny Brennan in Missoula once rigged up a complicated wiring mechanism under the seat cushion of the bakery delivery truck that we used for transportation between town and the flying field. This device was hooked to one of the coils in the ignition system of the Model T Ford, and could be activated by a pushbutton on the dashboard.

Jack Lynch flew into Missoula one day and Lonny obligingly offered him a ride to town in the wired-up bakery wagon. Experiments had demonstrated that a very satisfying shock could be generated by suddenly stepping on the low gear and pushing the button on the dash. Jack was stimulated in a most satisfying manner, and with his usual good nature, agreed that the installation was very shocking.

We all had a good laugh, a cup of coffee, and some cream puffs, for which the Royal Bakery (that Brennan operated) was famous. We then took Jack back to the airport where he took off in his Hiss Standard for Butte.

Months later, Jack again flew into Missoula. He took great pride in showing us a new step device he had built out of angle iron, a sort of ladder constructed on the side of the fuselage for the convenience of passengers getting into the front cockpit. The Hispano Suiza motor in those days had Dixie magnetos which were rather hard starting unless assisted by an additional high-tension spark to start the motor. This device was a small generator called a booster magneto, mounted in the pilot cockpit. The pilot

would turn a crank on the booster mag as the propeller was being pulled through on "contact." This aided materially in starting the motor, which then ran by the ignition generated by the two Dixie magnetos.

Lynch asked Lonny to inspect the new ladder he had constructed on the side of the fuselage, and as Lonny grasped the metal ladder, Lynch turned on his booster magneto, which he had hooked onto the ladder. The shock from the Ford coil was mild compared with the hot spark put out by the booster mag, and Brennan was unable to talk or let go of the ladder until Lynch stopped turning the crank on the booster magneto.

The retaliation for the ride in the bakery wagon was sudden and effective. It took a rugged constitution to stand up under the various pranks in those days, but anyone associated with flying activities was never bothered with boredom.

One of Jack Lynch's students in Butte was Wayne Siefert of Bozeman. Siefert came to California the same winter that Jack was flying out of Rogers airport, while I happened to be doing flight instruction in the next field down the street. Lynch brought Siefert over to the airport I was flying from and introduced him to me, saying he was a good pilot from Bozeman, Montana, and could sure use a job. I introduced Siefert to our chief pilot, Alan Berry.

I was flying for American Aircraft at that time, a company which had the distribution for Waco and Fairchild airplanes for the state of California. The company also did extensive flight training and passenger carrying in the Los Angeles area. On Sundays we had six or eight aircraft in the air continuously, doing both passenger hauling and student instruction. Our chief pilot checked Siefert out in a flight around the field, and hired him on an hourly basis to haul passengers.

I remember on that Sunday, coming back to the field with a load of sightseeing passengers, and Berry coming out and asking if I had seen my Montana pilot, whom I had talked him into hiring. It seems that Siefert had taken off with a load of passengers and had been gone for several hours. I called Jack Lynch on the phone and he started searching the area; we had all of the pilots on our field looking for a downed airplane. Late that afternoon Siefert showed up with his two passengers. With a shame-faced expression, he explained that he flew out over the middle of Los Angeles and became lost over the sea of houses. He said he flew around for a considerable time before he could find a landing field, and then when he had landed he couldn't remember the name of the field he had started from. He had spent the day in a process of elimination, landing at every field he heard about until he got back to ours.

Our chief pilot didn't seem enthusiastic about giving Wayne any more flying jobs; however, Jack and I lined up a job for him washing dishes in the coffee shop on the field. He stayed in Los Angeles the rest of the winter and was able to eat regularly with his dishwashing job.

Jack Lynch was always proud of his protégé, Charles Lindbergh; and Charlie in turn used to come by to visit with Jack every time he came into the Los Angeles area.



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# Perry Moore

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Perry Moore grew up on his father's ranch south of Two Dot where, like many other young cowpunchers, he often wished that he had an airplane to cover the range instead of putting in his time with the monotony of riding a slow-moving horse. He had his first airplane ride with an early pilot named Christopherson in Long Beach, California, in 1915 in a Curtiss pusher airplane.

Perry again went to California in 1919, where he took flying lessons at the Mercury aviation field on Wilshire Boulevard in Los Angeles. This field, located at the Corner of Wilshire and Fairfax, was owned by Cecil B. DeMille. Right across the street was another operation owned by Sid Chaplin and Doug Fairbanks. A. C. Mann was the flight instructor at the Chaplin field, and David E. Thompson was manager. Pilots flying from the Mercury airport included Locklier, Earl Dougherty and Kenneth Montee, who was Perry's flight instructor and who was with him when they cracked up an OX5 Jenny by running into another Jenny parked on the field.<sup>(1)</sup>

All of these people were famous names in California aviation. Locklier was killed in an exhibition flight with night fireworks; Earl Dougherty was killed doing acrobatics when his Laird airplane lost a wing at Long Beach; Montee was one of the famous Montee family who developed some interesting aircraft designs at Clover field. Kenneth Montee's father may be remembered by many aviation people as being, at one time, the oldest active California pilot.

The winter that Perry Moore took flight training in California, *Aerial*



*Perry Moore and Shorty Reese at Two Dot, Montana, with OX5 Jenny airplane. Perry Moore*

*Age* magazine came out with a story about two city officials from Two Dot, Montana, who were taking up flying in California. One was Perry Moore, mayor of Two Dot, and the other was the chief of police, both spending the winter in California and obviously, according to the story, holding their own in the exchange of tall tales with the native sons.

Perry came home in the spring of 1920, having purchased a surplus Curtiss OX5 Jenny from an officer at March Field in Riverside, California. Later that year, a Major Stewart from the Army Air Corps came to Two Dot to question Perry on the transaction. Seems that there was an investigation on the disposal of surplus aircraft.

The Jenny arrived in Two Dot by freight train in May of 1920, and a mechanic named Alexander came up from California to assemble it. Perry received further instruction from Shorty Reese in Butte. He was on his way to recoup on his investment by barnstorming neighboring Montana towns. Moore was immediately accepted in the Montana flying fraternity of that time, and while in the Billings area was well acquainted with "Cupey" Lynch, "Slim" Lindbergh, "Shorty" Reese, Bob and Joe Westover, John Farrell of Red Lodge, and Bruno Seltzer, who also barnstormed with an OX5 Jenny.

When interviewed on his flying activities, Perry mentioned that Shorty Reese flew for a Billings bootlegger named Lamb out of Billings, and that Slim Lindbergh left Montana to participate in further adventures by way of a boat down the Yellowstone River. As we know, he had an affinity for adventure in later years.

Perry became recognized as a very good pilot and his brother also learned to fly. They kept their airplane on the ranch and Perry's place was (and still is) a stopping place for pilots who happen to be flying that way. There is a hangar on the ranch and Jim Moore, Perry's son, uses an airplane in ranch operations more today than he does a horse. One of Perry's early pilot visitors was Merrill Riddick of Lewistown who, being on foot as it were, visited Perry for some time to keep his hand in at flying the Jenny. Perry accumulated some 400 hours in the Jenny before giving it up as a luxury and selling it to Art Stephenson who was then flying out of Helena. The airplane passed on to Ed Follensby and was an artifact in the Helena hangar in later years. It next went to Great Falls as a contrasting exhibit for an air show at East Air Base, parked beside a modern air force bomber.

Follensby said he last flew the airplane in 1935. Charlie Bovey of Great Falls purchased the Jenny from Ed in 1947 for a museum piece in an assemblage of artifacts in a frontier village which Bovey was developing at the Great Falls fairgrounds. It is unfortunate that this priceless museum piece of aviation was destroyed by a too-energetic crew of clean-up men at the Great Falls fairgrounds who had no concept of our heritage of Montana or aviation.

Perry Moore, in 1929, purchased a Challenger Travel Air which he and Stan Cavill flew out from the factory. They operated the airplane out of Harlowton until it was lost in the hangar fire that same year. Perry's next airplane was a Piper Tripacer. His son, Jim, took over the family flight opera-



tions following a slight accident Perry had while landing to visit his neighbor, Bob Baxter, who also has an airport on his ranch. Both Baxter and his nephew, Jones, are very active as Montana flying ranchers.

Perry's next airplane was a Cessna 175, to be flown only by Jim. Everybody on the ranch had to keep an eye on both Perry and the airplane to enforce this policy. Perry didn't go along with the viewpoint that he was too old to fly, and he was always ready to prove it at the first opportunity, even with his bum leg which kept him confined to the ranch house most of the time.

Perry held a Fédération Aéronautique Internationale license and later, Civil Aeronautics Authority and Federal Aviation Agency pilot certificates. It was with pleasure that I enjoyed several visits with him at the ranch before his death in 1963.

Highlights in Montana aviation events included the barbecues and fly-ins sponsored by the Harlowton ranchers and pilots. These were good times held at both the Baxter and Moore ranches where pilots came from all over the state as guests of these hospitable folks.

Perry's daughter, Ellen, like her mother, has a keen interest in flying. She has followed the tradition of the family by putting in hundreds of hours as a stewardess on Trans-World Airlines on routes all over the world.

#### *The OX5 JN4D Curtiss Biplane*

Successfully operating an OX5 Jenny in Montana was no small accomplishment. Those pilots who got along with this flying machine of limited capabilities proved to themselves and anyone else in the profession that they knew the fine points of this game of chance. You may understand the limitations of flying an airplane at a ground elevation of 4,200 feet, which is the altitude of the Moore ranch when the temperature is 80°, with a corrected density operational altitude of 6,000 feet, and the ceiling of the airplane 6,500 feet.

Other limiting factors may be recognized from the performance specifications as given by the Curtiss Company and quoted as follows:

"Useful load, 490 pounds

"Gas capacity, 21 gallons

"Maximum speed, 75 miles per hour

"Landing speed, 45 miles per hour (30 mph speed range)

"Climb at sea level, 200 feet per minute

"Range, 150 miles

"Gasoline consumption, 9 gallons per hour"

It may be noted that with a single passenger the airplane was already overloaded (if you had a full gasoline tank), and that there was a 30 mile per hour spread between stalling speed and top speed. The air speed indicator was a luxury not included on the instrument panel of many Jennys. When it was included it usually didn't work. The pilot calculated his air speed by the feel of the airplane and the sound of the wind whistling through the wires. The pitch of this sound to the trained ear of an experienced Jenny pilot was a very accurate air speed indicator.

In Montana, the Jenny usually flew around riding on the ground



*Art Stephenson and Jenny airplane.*

Mrs. Fred Woodside

cushion. In order to get anywhere, a studied use of upcurrents, both deflected and thermal, was necessary, and the avoidance of downdrafts, in those days labeled "air pockets," was obviously important.

Leaving the Moore ranch at an altitude of 4,000 feet for Helena required very favorable conditions. It was necessary to fly over the Deep Creek Pass east of Townsend at a minimum altitude of 6,500 feet, plus a couple of hundred feet to spare. With a rate of climb of 100 feet per minute, this would require climbing for some thirty minutes with good luck, with any down air defeating the operation. The flight could be accomplished only in relatively cool weather, and the distance of about 100 miles would take 1½ to 2 hours, leaving very little gas margin for headwind or detour.

You didn't have to make a decision of proceeding to an alternate airport. You kept over open country with a field in mind at all times, because from experience you could expect at least one forced landing en route due to motor failure. It was always considered good technique in landing to pick a field that you could get out of, as well as into, and with as few cows as possible, because these creatures have an inherent taste for fabric flavored with banana oil. Cactus was another problem, as the Jenny airplane tires most certainly were not cactus-proof. An uncharted prairie dog hole could result in a broken propeller and perhaps the loss of a few teeth.

Successful pilots did their flying early in the morning or late in the evening, and a headwind frequently resulted in getting some night flying time. Your instruments were the tone of the wires for speed and the wind on either cheek for bank and turn indicator. Car lights to land by were an unexpected luxury. A delicate touch was to feel for the ground with your tailskid, on part-throttle, because if you misjudged a landing you could bounce high in the air with the shock cord landing gear. An acceptable landing any time included contact with the ground in a series of graceful bounds.

Flying was a series of startling and unexpected experiences, punctuated with an exhilarating suspense, including a fine sense of accomplishment when you arrived at your destination.





*Jenny wreckage.*

Mrs. Ed Follensby

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## *A Wing and a Prayer*

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Art Stephenson related to me an experience wherein he was giving dual instruction to Al Stewart of the State Highway Maintenance Department in Helena. Steve was riding in the front cockpit and Al in the rear cockpit of an OX5 Jenny. They were flying out over the Helena valley near Lake Helena when the elevator control under the rear seat came unhooked. Steve took over and tried to “wish” his way down by use of the throttle — more power for nose up, less power for nose down. He nearly made it, but stalled out at about 20 feet altitude.

The Jenny hit so hard that it left them both sitting flat on the ground in the wicker seats, surrounded by fabric and splinters, but in the same relative position they had had in the cockpits.

Steve said he was quite dazed, but not hurt. He looked over his shoulder and asked Al if he was all right. Al replied that he was, and Steve remarked that they sure were lucky. He said that Al agreed with him, and following this conversation a brass tip off the propeller came down from up in the air, hitting Al on the head and knocking him out cold. A good computer problem in physics would be to take the figure of the time required for this conversation, then compute the tip speed, and the rpm. and trajectory of the propeller tip.

They were lucky, at that, and Al Stewart continued to fly, later doing considerable flying in the Helena valley. For years, he and Ed Follensby flew for their own enjoyment in Ed’s OX5 Jenny.



*Follensby aircraft, Helena.*

Mrs. Ed Follensby

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## *Aero Miles City Club*

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The Aero Miles City Club was organized in 1920 and incorporated under the laws of Montana with H. B. Wiley as president; Carl B. Calvin, vice president; L. K. Hills, treasurer; William G. Ferguson, secretary; and Earl T. Vance, manager and pilot.<sup>(1)</sup>

"This Montana corporation was capitalized at \$50,000 with \$37,500 subscribed; and authorized to engage in the airplane business, the building of airplanes, supplies and accessories, establish a municipal landing field, conduct a school of flight and teach flying, to make cross-country and exhibition flights, to make moving pictures, to obtain aerial mail contracts radiating from Miles City, and to do other things.

"It was stated to the press that other objectives of the company included an endeavor to secure legislation to protect, insofar as possible, the lives of the people of Montana by making it compulsory that airplane pilots who operate to carry the public give satisfactory proof of ability; to consist of a government license or a license from some pilot's school recognized by the Aero Club of America (Fédération Aéronautique Internationale). Another objective of the company was to do all things possible toward enlightening the general public in the principles of the theory of flight, an understanding of which will banish the fear of flying which is now retarding the progress of commercial air travel."



The Secretary of State, C. T. Stewart, later commented on the corporation, stating that he believed "the legislature should enact airplane legislation. Aviation is here and we might as well recognize the fact and prepare for its development. Two airplanes, for instance, are owned in Helena. Others are to be found elsewhere. The number of 'planes used in Montana is increasing constantly. The Montana Farming Corporation operating on the Crow and Fort Peck reservations contemplates using airplanes so that Manager Campbell can exercise closer supervision over its large operations.

"Airplanes should be licensed as are automobiles and laws enacted particularly to insure the safety of the public when 'planes rise and descend. Pilots should be supervised so that only careful and competent men will be permitted to take passengers."

Our state officials and others who recognized the capabilities of the airplane in contributing to the economy of Montana did some pretty clear thinking in their evaluation of how this transportation medium should be used and fostered.

The Aero Miles City Club was the result of a deep interest in aviation generated by Bill Ferguson and Earl T. Vane, as World War I pilots who came to Miles City in 1920. Vane, it so happened, was an itinerant barnstormer, and his primary interest in stopping at Miles City was to haul a few passengers and then be on his way. Several local businessmen in turn hired him to fly them on trips to ranches on business, and noting their interest, Vane decided to locate in this air-minded cow town.

Bill Ferguson at that time was secretary of the Chamber of Commerce. He and Vane worked together in developing flying interest in Miles City and in Montana. Most of the businessmen in Miles City belonged to the Miles City Club. This probably was the first community social club in Montana, shortly followed by similar ones in many Montana cities; several of which in later years expanded to include golfing, with affiliations throughout the country.

The Miles City Club as the center of social activities, soon became the center for "hangar flying" by the local air enthusiasts, who adopted a superior air over the more timid members and who immediately became authorities on things aviation as they related their space-annihilating experiences to the reluctantly envious audiences. The Miles City Club is now a memory. After many years of colorful existence it was destroyed by fire in June of 1964.

The airplane owned by Earl Vane was purchased by the Aero Miles City Club and another pilot of World War I, Arthur W. Stephenson, was hired when it was evident that there was more potential business than one airplane and one pilot could take care of.

The Aero Club came into being more or less as an affiliated outdoor activity associated with the Miles City Club. Now that everyone rides inside in an airplane, golf has taken the place of the open airplane for the club members as a means of assimilating the premium air still available in Montana.

"Steve" Stephenson who had flown an SE5 on the western front, originally hailed from a ranch near Pierre, South Dakota. He owned a Curtiss





*Aero Miles City Club's OX5 Standard barnstorming Ryegate, Montana. (Proptwister, Wiley.)*

Corlie Dunster



*Curtiss Oriole airplane.*

Markle Brothers



*Earl Vance barnstorming below rimrocks, Billings.*

Frank Wiley



JN4D (Jenny) which he brought to Miles City. A local hotrodder and motorcycle rider was hired as a mechanic; he had recently been turned down by the Army Air Corps because he couldn't see 20/20. That was yours truly, who would gladly have worked for free just to be able to be associated with this select group of aviation people.

By late spring of 1921, Bill Ferguson had contracted for exhibition flights and air shows with fair boards and rodeo boards in communities in various parts of the state, including Sidney, Glendive, Miles City, Broadus, Jordan, and Hardin, and with the State Fair Board in Helena for exhibition flying at the State Fair, scheduled to be held in Helena in September. A parachute jumper named John McLaughlin from Minneapolis was lined up, plus a third pilot, Seymour "Andy" Anderson of Laurel, who was hired to fly one of the three airplanes to be operated by the Miles City company at the big event in Helena.

Bill Ferguson loaned me some military textbooks on aircraft and the Curtiss OX5 engine, which I read so many times that I could quote them verbatim. My first job was to install a Curtiss OXX motor in a Standard airplane, powered with a four-cylinder Hall Scott engine, and in which Vance had been forced down about 30 miles northwest of Forsyth. He was flying this airplane to Miles City from Great Falls, where the club had purchased it from Oliver Gies. When the motor froze up and seized due to lack of water, Earl landed out in the sagebrush in a most isolated area.

The replacement of the engine required the rebuilding of the nose section and the relocating of the engine on the motor bed to keep the center of gravity from changing. I hadn't heard of the center of gravity at that time, and thought up my own aeronautical engineering in locating the placement of the new engine, which was 50 pounds lighter than the one that was removed.

I lifted the tail of the airplane up until it just balanced when tied with a rope from the tailskid to a Model T Ford axle driven into the ground. Then I removed the old engine and placed the new motor on the motor sills, moving it ahead until the airplane again just balanced. I bored new holes in the motor bed to secure the new engine. Another problem was the rebuilding of the front end to accommodate a V-type engine instead of the vertical motor.

I camped by that airplane for two weeks making the modifications, cooking with a blowtorch and visiting with about 50 head of antelope that became quite friendly. Steve and Earl flew out in the Jenny and Vance test-hopped the Standard, which flew hands off. They thought I was really an expert and I didn't tell them any different.

The Standard J1 airplane was a World War I training airplane built by a company in New Jersey, but financed with Japanese capital. This open, two-cockpit biplane had a 46-foot wingspread and a 6-foot chord. Two passengers were carried in the front cockpit with a pilot in the rear cockpit. It was an excellent barnstorming machine. It would carry any load, could be landed at about 35 miles per hour and cruised at about 65 miles per hour.<sup>(2)</sup>

The most ideal combination for passenger carrying was to take out the gasoline tank, build the tank in an airfoil shape and place it on top of the



*Barnstorming Aero Miles City Club Standard.*

Corlie Dunster

center section, then make a four-passenger cockpit in front of the pilot, powering the airplane with a 180 hp. Hispano Suiza motor. Other innovations included a beefed-up landing gear, larger wheels, and removal of the cabane masts and overhang wires, replacing them with struts extending from the lower wing fittings to the overhang of the upper wing, or clipping off the upper wing to the same length as the lower wing.

Some models had a nose wheel, to keep the airplane from nosing over, and also balanced ailerons. The balanced ailerons were a bit tricky as they could create an aileron drag rather than lift. It was a bit confusing if the airplane was stalled in a turn to have the wrong wing drop when attempting to bank the airplane, making it turn in the opposite way to the intended movement by the controls.

During World War I the Standard was discontinued as a training plane, being replaced by the Curtiss JN4D. Surplus materials and aircraft from the Standard airplane factory, in some inexplicable manner, were shipped to Lincoln, Nebraska, where the Lincoln Standard Company came into being. It has been said that two trainloads of airplane parts comprising most of the assets of the Japanese-financed Standard airplane factory in New Jersey were shipped to Lincoln, Nebraska, where after World War I the Lincoln Standard airplane company emerged. It seems that this dependable training airplane had acquired a bad reputation with the military as a trainer because of frequent cases of fires in the air caused by a carburetor defect of the Hall-Scott engine.

Barnstormers found that the OX5 engine or the Hisso motor corrected this hazard. They favored this airplane over the Jenny because of its stability and load-carrying capability. As a result of this aviation activity, Lincoln, Nebraska, became the aviation center of the country during the early 1920's. Many pilots now being retired from our airlines got their early flight training in this awkward but dependable old airplane.

The whiskey-hauling fraternity of that time favored the Lincoln Standard, which could haul a thousand-pound load with each case of 12 bottles





*Barnstorming.*

Corlie Dunster

padded with straw and sewed up in a burlap sack. A Miles City speculator purchased a load packaged as described, which turned out to be neatly split pieces of firewood, all cut up for the kitchen stove. It took him several years to live down the nickname of “Cordwood Johnny.”

A Miles City World War I pilot and barnstormer named Bert Cole was familiar with the weather and terrain between Moose Jaw, Saskatchewan, and Denver, flying the route regularly both night and day. In addition to Standards he operated a Curtiss Oriole, a high performance biplane with a streamlined monocoque fuselage, powered with a Curtiss K6, 160 hp. engine. Bert wanted an airplane with more payload, so he put a Salmson 260 hp. water-cooled radial engine in a Standard and ended his flying career by looping the wings off his airplane on a test flight near Denver. The flying industry there lost a colorful pilot and, strange to say, the race-horse industry lost a superb horseshoer in Bert, who had grown up by the Miles City race-track and was recognized as the best racehorse-shoer in the business.

The Aero Miles City Club engaged in the less glamorous and less remunerative business of hauling passengers, flight training, and cross-country and exhibition flying. Bill Ferguson (in his enthusiasm) sold an air show to the State Fair Board which included a mock air battle every day with three airplanes leaving clouds of trailing smoke, (“contrails” if you will), bursting bombs, “death-defying” dives and loops, parachute jumps, and a car-to-plane change right in front of the grandstand, all at a bargain for 4,500 bucks. Bill came home from Helena and scared us all half to death when he read the contract to us. But as this was not to be until the next September (1921), we thought we could work it out, or it might go away.

The car-to-plane change was the stickler, so we thought we’d better practice this trick. We arranged with Jules Acker, a car dealer in Miles City, to use a fast, open Phaeton with wire wheels. We tried out our first car-to-plane change on “Lansing Flat” north of the city. We removed the top and windshield from this fast cloverleaf roadster, and also made up a rope ladder which was fastened to the inboard strut of the airplane. The ladder was

weighted with lead to make it hang down from the airplane at the terrific speed of 60 mph. Our parachute jumper, John McLaughlin, was instructed in making this simple transfer from the automobile to the airplane by use of the ladder. All he had to do was to climb up to the low wing of the airplane from the automobile while I steadied the ladder, riding in the back seat of the car.

Earl Vance flew the airplane, and the whole town turned out to watch as Acker got a lot of free publicity for his fancy red automobile. The roadster took off through the sagebrush, pursued by the Standard in the best bulldogging form of that time. "Mac" and I crouched in the back seat. But just as I reached for the ladder, which was dangling down from the airplane, the car seemed to lift off the ground. I lost all interest in the ladder and dove for the floor, trying to beat Mac to a firm grip on a footrail I had kept in mind. When things quieted down I ventured to peek over the front seat. Jules Acker was crouched under the steering wheel all bent over, but with his foot still on the gas. The airplane was flying ahead close to the ground, smothered by a cloud of dust which also enveloped the car. The speedometer hovered a bit above 60 mph. We collected our wits and drove back to the starting point, where we asked the spectators what had happened.

It seems that as the airplane approached the car, the turbulence of the air from the car caused the airplane to rock and settle, dragging the ladder on the ground. Then the weighted ladder flipped up under the car and caught on the spare wire wheel on the back of the car, picking up the rear end of the car and pulling the airplane down. The spare wheel broke off, releasing the airplane, which bounced twice on the ground ahead of the car and then flew on. The car floundered around, straightened out, and resumed its previous trajectory. This was an excellent demonstration of the speed and stability of this car, which aided Acker in several sales during the coming year. The incident, however, dampened our interest in a car-to-plane change. I worried about that fair contract all summer, and wondered what we would do. So did the other boys.

We equipped the two Standard airplanes with OXX engines, 100 hp., with dual ignition and with a  $\frac{1}{4}$  inch bigger bore than the OX5, which developed 90 hp. at 1400 rpm. We purchased three engines from Marvin H. Northrup of Minneapolis, and one of the engines was certainly a beauty. The labels on the shipping crate showed that it had been manufactured for export to the Swedish government. It was machined and burnished all over.

Turk Minnerly of Missoula was a Curtiss OX5 engine inspector during World War I at the Hammondsport factory. He recently told me that the housewives in Hammondsport used to take the aluminum parts of the motors home to scrape and polish them with special polishing rags and compound. They were paid so much a piece for this polishing and took great pride in their work. The motor showed that it had had loving and tender care, and I was certainly proud to work on it and keep it shined up.<sup>(3)</sup>

We did a land office business with the stockholders and club members really building up the flying hours as passengers, but with very little flight training going on. A rodeo at Hardin during the summer of 1921 gave us an



extra thrill when the promoter left town at night with all the gate receipts, including the prize money. A group of unhappy and inebriated rodeo riders hauled us out of bed in the middle of the night with ideas of a pilot-lynching party, thinking that we had furnished transportation for the absconded rodeo promoter.

In September we pulled into Helena to set up our show for the State Fair. Steve and Andy Anderson had trouble getting into Helena due to bad weather. The Jenny had to be flown from Miles City to Helena via Great Falls and the Gates of the Mountains, as it couldn't get into Helena over the Deep Creek Pass. Our airport was the municipal golf course, where Ed Follensby had a hangar, located directly north of Carroll College. That hangar is still on the golf course, but it has been many years since an airplane has interfered with the local golfers.

Our ground transportation and quarters were promoted from Sergeant Long of the National Guard, a war buddy of Bill Ferguson's, who was assigned to liaison operations between the regular army and the Guard in Helena. Long furnished us with a squad tent, cots and blankets, and two Model T Ford machine gun trucks.

The State Fair contract included night aerial fireworks, which were a thrill to both us and the spectators, as the airplanes were equipped with fireworks and there was always a chance of a bad crackup landing at night. The fireworks consisted of a string of roman candles and phosphorous flares all hooked together with a powder fuse. This display was made up in two duplicate units, each of which was fastened to a wooden frame extending behind the trailing edge of the lower wing of the airplane, located outboard of the stabilizer and elevators. The fireworks were touched off from the cockpit by a "hotshot" battery wired to a cap in the fuse.<sup>(4)</sup>

The technique was to touch off one side, which burned about five minutes, flying the airplane from the front cockpit and looking out of the airplane on the opposite side from the burning fireworks to keep from being blinded by the glare. When one side had burned out, the pilot touched off the other side. After the shooting stopped, the pilot flew around for a few minutes to get his night vision back, and then landed by the car lights and railroad fusees which had been placed on the ground to guide him. Quite a show, and the spectators really loved it!

We also had smoke bombs which, when taped to the wooden frames, emitted trails of dense yellow smoke while the airplane was flown through various acrobatic maneuvers. In addition, we had percussion bombs which made a very loud, sharp explosion together with a brilliant flash, in simulating bombing. These bombs had a friction igniter similar to a railroad fusee. They exploded in about 30 seconds after they were ignited. At low altitude the technique was to hold the bomb for a count of five and then throw it overboard. That was my job when the mock air battle was on.

I rode with Andy in the Jenny, and I can still see his eyes get bigger and bigger behind his goggles as I deliberately counted to five before tossing the bomb overboard. In later years I knew a pilot named Bud Steele who flew for the Gates Flying Circus, whose bomber fumbled the ball and dropped

the bomb in the cockpit of a Standard down in Florida. When the bomb let go it blew the tail off the airplane, killing Bud Steele and the bombardier. I also knew a Major Fancher of the Spokane Air National Guard who was holding one of these percussion bombs when it exploded, killing him instantly.

Our air show at the fair went along pretty well. We made a deal with Eddie Gallivan, who ran a restaurant in Helena, to borrow one of his two Cadillac roadsters, plus a driver for our car-to-plane change. Eddie was not only interested in aviation, but he used his Cadillacs for frequent trips to Canada on business.

The first day of the fair we got set for the car-to-plane change. My job was to stand on the running board of the Cadillac to hold the ladder for McLaughlin while he climbed aboard the airplane. I made the mistake of standing on the outside running board. As the Cadillac skidded around the first turn in the track, I was trying to chin myself, hanging from the car door. I hastily climbed over to the inside on the straightaway and was all set to hold the ladder as we went by the grandstand. But Vance wasn't about to get close enough for a contact. He told Bill Ferguson to announce to the crowd and the fair committee that the crosswind was too strong to make the change without endangering the crowd in the grandstand.<sup>(5)</sup>

That night we dreamed up a stunt for our now more expensive parachute jumper to stand on the top wing while the airplane looped. The fair board accepted this substitution and I worked all night making a leather harness for Mac to wear, with husky shoulder straps fastened to a belt, and other straps in turn fastening the harness to each of the four wing center section fittings with snaps and rings.

The stunt looked good, with Mac standing on the top wing while Vance looped the Standard. When they landed, Mac was all tangled up — standing on his head in the front cockpit. The center section was caved in with the rear spar broken where he had fallen backwards as Vance looped too tight for him to stand up. I rebuilt the center section, covering it with plywood, and that stunt went off nicely each day after that.<sup>(6)</sup>

We decided that we owed the fair people some extra excitement to compensate for the failure of the car-to-plane change. So, without Bill Ferguson's knowing it, we told the fair "marshal" to announce that on a bet, Bill had accepted a dare to make a parachute jump. Even in those days, as later, everyone knew Bill Ferguson for his Scotch wit and charming personality. The fair marshal was a man on horseback with a big voice and a big megaphone. He has now been replaced by Walter Marshall and the public address system, plus radio and television.<sup>(7)</sup>

I fixed up a pair of white coveralls stuffed with a blanket and straw and attached a piece of canvas to this dummy. Vance flew me over the area north of the racetrack, where I dumped the dummy out at the scheduled time. The interest generated was far beyond our expectations.

We circled the racetrack and from about 500 feet altitude could see people flow out of the grandstand and across the infield toward the north side of the track where "Bill Ferguson" had landed in a pig pasture on the Child's Ranch. The crowd slowed down, coming to a stop in the infield,



except for a few courageous souls who kept on to see what they could do for poor old Bill. This scene was followed by the fire department, ambulances, and the lurching cars of doctors responding to the emergency. Most of the terrified crowd didn't go back to the grandstand — they went home!

That night the fair board came to our tent on the golf course and cancelled our contract. Bill also gave notice that he was filing suit against us. We began to think that our joke had been a grave mistake. But by the next day, everyone was so glad to see Bill Ferguson alive that they began to think the stunt funny, too. By noon the fair board, sensitive to public opinion, relented, and we went on with the show.

In later years I have often been at a loss to understand how we could have been so irresponsible as to hatch up such an escapade. And then I remember that Bill, Vance, Steve, Mac and I were all in our early twenties. I can better understand the enthusiasm that youngsters have today for living, now and then doing a "buzz job" in violation of Civil Air Regulations. (Lynch and Lindbergh pulled the same stunt at a Billings fair the next year.)<sup>(8)</sup>

As usual, it snowed during fair week, and I got Ed Follensby, who ran an auto repair shop, to help me put a new connecting rod in a motor while it snowed all night. We did the job by removing two cylinders without taking the motor from the airplane. It was a case of scrape, blue and fit with an electric light strung up under a canvas placed over the nose of the airplane. We went up to Eddie's Cafe to eat about two a.m., and I asked Eddie for some rags to clean up the mess. He insisted on giving me an armful of linen napkins from his hamper. I had the opportunity several years later to give Eddie and his family an airplane ride, and we thoroughly enjoyed reminiscing over that State Fair program back in 1921.

Our only real misfortune occurred the day after the fair when Andy nosed the Jenny up, breaking the propeller. This happened as we tried to fly to Great Falls via the railroad and Wolf Creek instead of the Gates of the Mountains route. He just couldn't get high enough to keep off the ground in some down air near Silver Star.

We continued to barnstorm on our way home, and at the first annual meeting of the Aero Miles City Club later that fall, the treasurer reported that we had grossed about \$15,000 that year. But our expenditures were of the same amount! An analysis of our costs showed that the stockholders' dividends had been mostly absorbed in non-revenue trips made by the club members in their own private activities. Everyone was paid off, the bills were paid, and it was decided that the operation should be liquidated. The overhead of future operations, if continued through the winter, would exceed the assets, which were intangible.

Bill Ferguson went back to his Chamber of Commerce activities; Vance went to Sidney to teach Billy Combes to fly; Steve went to Winnett to teach Les Hoyle to fly; and McLaughlin returned to Minneapolis with his substantial summer's wages, the only recognizable profit, which he certainly had earned. I saw the need for further education and enrolled at the State University at Missoula.



Shorty Reese, his dog, 'Buffer,' and a payload of passengers.

Perry Moore

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## Cat Creek Oil Boom

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It was announced in Billings one summer morning in 1921 that Shorty Reese would deliver the *Billings Gazette* to the residents of the booming Cat Creek oil field the next morning as part of a scheduled celebration.

Earl Vance, who at that time was with the Aero Miles City Club, contacted the Miles City *Daily Star* for a supply of papers. We decided to try and scoop the *Billings Gazette* distribution at Cat Creek by starting out before daylight and having the *Star* available to the residents of that great new oil field to go along with their breakfast. We also planned on taking both airplanes being operated by the Club and do some special hauling of passengers at the celebration.

Vance took a stockholder of the booming "56" Oil Company. I rode with Art Stephenson, who flew the other airplane. We landed on the prairie at Cat Creek, delivered our papers, and took in the celebration. Shorty Reese and a Billings man named Lamb, representing a Canadian Export Company (and who owned the airplane) showed up later. We all had a good laugh over scooping them on the paper stunt.

The airplane that Reese and Lamb flew in was their brand new Lincoln Standard, one of the few I had seen which had a three-wheel landing gear. The third wheel was used only in case the airplane nosed up, was designed to keep it from nosing over if one of the main wheels should inadvertently roll into a ditch or a hole. This airplane, powered with a 180 hp. Hisso engine, was one of the prettiest I had ever seen.

The celebration included a real knockdown drag-out prize fight between a big oil field driller and a challenger imported from the Twin Cities. The local boy won, which made everyone happy.





*'Hisso' Standard with tricycle gear.*

Perry Moore

A violent thunderstorm late in the afternoon was preceded by a line squall which could be seen approaching behind a big, rolling cloud of dust. I had taken the precaution of taking the wheels off our two airplanes and tying them securely to the ground with the tails into the wind. Shorty Reese had tied his airplane down facing into the wind with additional stakes and ropes fastened to the nose wheel, as well as stakes and ropes tying down the lower wings. I suggested to him that he turn his plane around, but he informed me that the army procedure instructed that aircraft be tied down facing into the wind.

When the line squall hit it was accompanied by hail and a deluge of rain. The stakes on Lamb's airplane pulled out of the ground and the airplane took off like a kite, flying backwards, clearing both of our planes tied downwind from his. The airplane came down, striking the ground with such force that the fuselage broke at the rear cockpit, while the tail flipped up over the center section with the plane rolling backwards across the prairie on the three-wheel landing gear. It rolled into a gully and disappeared from sight.

After the storm subsided we all rushed down to the edge of the field and looked into the gully where the Lincoln Standard was just a mess of fabric and struts. It was a tragic and shocking spectacle to see this beautiful airplane, in a matter of minutes, completely destroyed. Lamb, the owner, stood looking into the gully. I was quite surprised to hear him remark, "You can't tell me the Lord didn't know what I was using that airplane for." This was quite a sobering thought for this rough, tough old bootlegger to make.

The wreckage of this airplane was later purchased by a painter named Black in Helena who used the parts in rebuilding another Standard airplane which he owned, and which he and Bill Ferguson had spun in at Butte.

After the storm was over, Vance and Steve decided to fly into Winnett as there were inadequate accommodations at the oil field because of the huge crowd attending the celebration. We took off just at dusk, with Vance leading the way, as he had flown into Winnett before. I rode with Steve

who followed Vance. Vance flew right on by Winnett at dusk without seeing it. We continued on northwest, with Steve following the exhaust flames of the lead airplane, while I was getting more unhappy by the minute.

The area north and west of the Cat Creek field and Winnett is still very sparsely populated, as it was in those days. We flew on and on until, luckily, a big moon came up. Steve and I could see Vance circling a light-colored field and then a trail of dust as he landed in the stubble. Steve landed in the field beside him and I was glad to be on the ground; both airplanes were about out of gasoline. Shortly after we landed a farmer with several youngsters arrived, telling us in broken English that they lived nearby and that we were north of Wild Horse Lake. These people, Russian immigrants, had never seen an airplane up close before, nor had they ever seen airplanes flying around at night. They were greatly impressed.

We stayed all night with these hospitable people, sleeping on the floor of their sparsely furnished frame house. Following an early breakfast we drained the gasoline from their tractor, putting about 5 gallons in each airplane. We paid them for the breakfast and gasoline and took off.

Vance and Steve climbed up until they spotted another field with a tractor, where we landed and purchased more gasoline. After two such stops and being advised that Winnett was "over thataway," we arrived at this town we had passed up the night before in the darkness — not hard to do in those days, and a good lesson for us.



*SE5 Fighter.*



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# Arthur W. Stephenson

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Art W. "Steve" Stephenson was another Montana pilot during the barnstorming era, who contributed much to the transition from barnstorming to the scheduled airlines in the state.

Steve came to Montana in 1921 as a pilot for the Aero Miles City Club at Miles City. He had learned to fly in the army during World War I, and had served overseas as a fighter pilot in an SE5 squadron — one of the few squadrons flying this type of airplane that our country had in the European theatre.<sup>(1)</sup>

Steve had been raised on a ranch near Pierre, South Dakota, and had completed three years of medicine at the University of Chicago before going into the service. He had also flown as a pilot out of Minneapolis on a contemplated airline operation, suddenly terminated by the crash of one of the two "junker" airplanes that the airline was to have used. This plane had mysteriously exploded while in flight.

When Stephenson came to work for the Aero Miles City Club, he brought with him his own OX5 Jenny, a new airplane in excellent condition. It was used extensively by the Club, together with the two Standards which were owned by this Miles City flying group.

I remember the first time I saw Steve: It was when he flew Earl Vance from Miles City to a sagebrush flat about forty miles north of Forsyth where I was installing a new engine in one of the Standard airplanes owned by the company. As previously related I had camped in the sagebrush for two weeks and had wired Vance from a telegraph office at Sumatra that the plane was ready to test hop. Steve landed the Jenny beside the ship I was repairing, and this was the first time that I had had an opportunity to thoroughly inspect this Curtiss airplane. It had several interesting innovations, different from the Japanese Standards with which I was familiar.

Steve then flew for the Aero Miles City Club, and he and his wife, Iris, both proved well-liked by the Miles City people. He repeatedly demonstrated that he was an efficient and capable pilot. In 1922, Steve taught Les Hoyle, a Winnett banker, to fly. He then moved on to Helena where he engaged in student instruction as well as barnstorming with a Jenny that he, Fred Sheriff and Ed Follensby had acquired from Perry Moore.

In 1923 Steve operated the Edwards Motor Company, a car sales agency in Missoula, selling Hudson, Essex and Studebaker cars. During this time he gave Lonny Brennan and myself some very thorough flight instruction, launching us on our ways to fame and fortune of somewhat doubtful volume.

Leaving Missoula, Steve went to Dillon where he flew a Waco 9 for Fred Woodside, then engaging in early aircraft sales and flight instruction in several western Montana communities, including Dillon, Helena, Butte



*Lt. Col. Arthur W. Stephenson.*

Frank Wiley





*K6 Standard, Missoula.*

Frank Wiley



*Art Stephenson with National Parks' Stearman.*

Blanche Ferguson



*Wasp Fokker, National Parks Airways.*

F. H. Christensen

and Great Falls. It was Steve who shipped the first carload of airplanes into Montana in the winter of 1926-'27, unloading seven Wacos from an express car shipment at Butte. I came up from California and assembled and rigged these airplanes for him. Steve sold them to several later active Montana pilots, including Kenneth Salsbury of Butte, Ray Fisher of Anaconda, Johnny Lucky of Butte, Fred Woodside and Emerson Hughes of Dillon, and one to a new aviation company in Helena headed by Fred Sheriff and Tom Hawkins.

Steve took a very active part in the organization of National Parks Airways, Montana's first scheduled airline to receive an airmail contract. He also made the first flight — the inauguration of airline service by National Parks between Salt Lake City, Utah, and Great Falls, Montana — on August 1, 1928. Steve likewise made the last flight of National Parks Airways as vice president of operations, following which the airline was taken over by Western Air Express. He then continued as an airline pilot with Western Air.

Steve related to me an experience he had while flying for National Parks Airways. He and Hank Hollenbeck were forced to land on the prairie near Dell in a blizzard. They sat there for two days, waiting out the blizzard as guests of a shepherd camping there in a sheepwagon. Under the close confinement of the sheepwagon, everybody became bored. The herder suggested a friendly game of poker, with the result that when the weather cleared, Hank and Steve departed minus all their cash and part of their clothing. The next summer they were frequently reminded of their experience when they spotted the same sheepwagon as they flew over.

Art Stephenson was active in the establishment of the present municipal airport in Great Falls. He also organized the Rainbow Flying Service which was the first operation on that field. The Rainbow Flying Service was incorporated in 1928, the corporation officers being Lloyd "Loy" Molumby and Tom Busha, Great Falls attorneys, with Stephenson, Herb Halloway and H. J. Hockersmith as pilots. This company engaged in student instruction, aircraft sales and flight operations, and they built a hangar which was leased to National Parks Airways. Stephenson also was active in the formation of a local flying company in Helena.

The people engaged in aviation operations in the Montana towns where Steve helped develop flying were active in generating community interest in the proposed scheduled airline operations of National Parks Airways. It was no coincidence that National Parks initiated airline service to the Montana communities of Dillon, Butte, Helena and Great Falls. All of these communities were Montana cities in which Art Stephenson had initiated aviation activities. He, together with Bill Ferguson, may be credited with the initiation of scheduled air mail service to Montana.

Steve flew for Western Air until 1942, when he was called to active duty by the Army Air Corps, serving with the ferry command. He was responsible for an initial air route survey for the army through Africa to India. He later served as base commander at Fairfield Susan Air Base in California, and on Guam in the Pacific. Following World War II, Steve was operations chief of Alaska Airways.



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# Bob Westover

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Bob Westover was one of Montana's most stubbornly dedicated aviation boosters. He had a very early interest in aviation through the activities of his older brother, Joe, a mechanic for Ruth Law who started flying in 1911. Ruth Law not only taught Joe to fly, but he, in turn, relayed his interest to Bob when they lived in Lincoln, Nebraska. Bob Westover came to Billings in 1911 where he worked as a mechanic and then established his own business. Although primarily engaged in the garage business, he became acquainted with the itinerant pilots who came through Billings on their way north from Lincoln, Nebraska. These pilots included "Cupey" Lynch, "Shorty" Reese, and Tod Nelson. In those days flying in the Billings area was from a dairy ranch west of town, owned by a rancher named Ben Hogan. When the above-mentioned pilots barnstormed Montana in 1921, they based their operations at the Hogan ranch. It was with this group that Charles A. Lindbergh worked as a mechanic, having met Lynch while taking a mechanic's course at the Aviation Mechanics School in Lincoln, Nebraska, in 1922.<sup>(1)</sup>

Bob Westover purchased a Hisso Standard which was flown by Tod Nelson. The group later (financially assisted by the Billings bootlegger named Lamb), purchased a K6 Standard, and this was followed by a new Lincoln Standard equipped with all of the latest refinements. The latter airplane was wrecked in a line squall at Winnett; the K6 Standard was wrecked in Chinook when it landed on a truck at night (which was in a field waiting to pick up a load of liquor flown in from Canada). I purchased the wreckage of this K6 Standard from the owner of a general store in Chinook, who sold it for storage charges in 1923. Lonny Brennan and I took the wrecked airplane from Chinook to Missoula where we rebuilt it that same year.

Joe Westover, who had been flying out of Minneapolis, came through Montana in 1923 with Hink's Flying Circus. Hink's Flying Circus was well known throughout the midwest and in the Dakotas. When they came through Montana they operated three Hisso Standards. Joe stopped in Billings, where Bob overhauled the Hisso in the airplane Joe was flying. Joe later flew at Minneapolis with an OX5 Jenny, subsequently going to work for Universal Airlines when airline operations started to develop. When Universal was absorbed by American Airlines, Joe flew for American for years. He had been a pilot and flight instructor during World War I, and when World War II came along he again went into the service. He was known as "Smoky Joe" north of Edmonton, Canada, where, as a Lieutenant Colonel, he commanded the search and rescue operations of the army air corps between Edmonton and points in Alaska.



*Lincoln Standard plane, manufactured by Lincoln Aircraft Company, Inc., Lincoln, Nebraska.*

Bob Westover



*Bob Westover and crew with K6 Standard.*

Bob Westover



*'Crow Chief' Westover and tribe.*

Bob Westover



After World War II Joe retired, living in Long Beach, where he engaged in the real estate business.

Bob Westover, in addition to his substantial garage business, continued to purchase airplanes — primarily for the benefit of experience gained by the pilots who flew for him. Westover took on the Eagle Rock agency in 1927, purchasing his first Eagle Rock from Dick Lefrink, then of Casper, Wyoming. Westover employed Vern Lucas, our Montana barnstorming ace, to fly for him. He went in partnership with Grady Woodard and Earl Hale in aircraft sales and student instruction. The Eagle Rock was an excellent barnstorming airplane, having a very light wing loading and a recognized ability to get out of short fields. They sold well to many barnstormers and pilots throughout the state as well as in Wyoming.

Westover next took on the agency for the Monocoupe airplane. He had a pilot named Johnny Knockles who demonstrated this machine for him. Knockles was a hot acrobatic pilot. He terminated Westover's interest in Monocoupes, however, when he spun in at the Miles City air show in the fall of 1928, killing himself and a student pilot and an airplane prospect named Moore, from Wolf Point.

Bob Westover, until veteran Dick Logan became airport manager, furnished the service to the present Billings airport. This was a very material contribution in that it was necessary to drive from the Westover Garage in Billings east out to the fairgrounds, then up the roundabout Boothill Trail and back to the airport, a distance of 9 long, rough miles. The present accessible highway making the airport adjacent to the business section of the city was a later luxury, overcoming the vertical rimrock barrier between the town and the airport.

I remember flying a Waco 10 into Billings after dark one night in 1927 and circling the Westover Garage until Bob came out and started for the airport. I then returned to the airport where I circled some more, wondering if I had enough gasoline to stay up until he could drive up and use his car lights to illuminate the landing field. It so happened that a county commissioner, driving along a road adjoining the airport, realized my predicament and placed his car in a position so that I could use his lights to land by. Bob showed up shortly after, helped me tie the airplane down, and furnished me transportation into town.

Bob certainly put a lot more into the flying business than he ever took out of it. It was people like him, with his interest and vision, who really developed aviation throughout the country.

Westover left Billings and moved to Coeur d'Alene, Idaho, where he lived for some twenty years. He has contributed much material to the files of the Montana aviation history project, including a model airplane constructed by himself and Charlie Lindbergh in 1922, and a collection of pictures of the time in which he was active in the flying business in Billings.

Bob Westover ~~had a son~~ who built a distinguished career as a pilot during World War II, and who now lives in Florida. He also has another son and several relatives who still reside in the Billings area. Bob now lives in Florida with two daughters, but he makes annual visits to Montana.



*Bach trimotor airplane.*

Neil Keim

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# Clarence O. Prest

MORTON L. M. BACH

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A young lady, Georgia Emerson from Anaconda, Montana, was possessed of considerable personality and charm. She was not only a feature writer for the *Anaconda Standard* and a beauty queen but eventually became a motion picture actress. Georgia had her first airplane ride in Venice, California, in 1917 in an airplane called the "White Star," owned and operated by the Crawford Airplane Company. This young lady was later featured in the *Anaconda Standard* as Miss Betty Butte, sponsored by, and representing, this Montana mining city at the state fair in 1920 as "the Montana aviatrix".<sup>(1)</sup>

Immediately after World War I, Venice became a center for airplane development, well supported by a miscellaneous and assorted stock of surplus World War I airplane material. The Crawford Airplane Company built several airplanes and enjoyed a lucrative business dealing in surplus airplane materials. The beach town of Venice is only a short distance from Santa Monica, where Donald Douglas later started airplane production in an old movie studio. An aircraft designer named Fisk built several airplanes in Venice, including a cabin triplane powered with two Curtiss OX5 engines.

I worked for Douglas one winter in the early 'twenties, and used to browse through the airplane parts which were stored in various sheds and yards in the area. I must admit that the variety of this material stimulated ideas of both new and hybrid airplane designs.

The Montee brothers at Clover Field built clipped-wing Jennys. They incorporated in them several ideas of their own. Morton Bach, another youthful airplane builder, had ideas about the use of plywood in aircraft fuselage design which made possible the later development of an 8- or 10-place trimotor cabin airplane with plywood fuselage. He built some 25 of these airplanes, designed for airline operations. Being somewhat ahead of their time for airline work, they were used extensively for cargo hauling (primarily by liquor importers). They decreased the safety factor, but increased the economy and efficiency of the trimotor, to a degree, by removing the outboard engines, making a single-engine airplane and using a nose engine of greater power.

Clarence Prest, also of Venice, became recognized as one of the early successful aircraft designers when he built a small, single cockpit biplane with an 18-foot wing spread. This little plane was only 14½ feet long and weighed but 500 pounds! It was powered with a 7-cylinder rotary engine, had a top speed of 100 mph., with a landing speed of 45 mph. and a climb of 1400 feet per minute. This hot little ship was labeled, "Poison. Dose — One Drop."<sup>(2)</sup>

Prest joined forces with Bach and they built four highlift wings which

they rigged on an OX5 Jenny fuselage. This resulted in a good performing, two-passenger airplane with superior takeoff and landing capabilities, far ahead of anything available at that time. This airplane could land in 250 feet and take off in 350 feet. It had a wing span of 35 feet 6 inches, with a 5 foot 8 inch chord, and weighed 1,350 pounds. (A regular Jenny weighed 1,640 pounds.)<sup>(3)</sup>

Our Montana beauty queen, Georgia Emerson, become Mrs. Prest. No doubt she was a motivating influence in the project sponsored by a western movie producer named Tom Ince who had a studio in the Venice beach area. In any event, Ince put up a \$25,000 purse as a prize for the first person to fly from Mexico to Siberia.<sup>(4)</sup>

Prest and Bach named their rejuvenated Jenny "Polar Bear I." With \$500 capital raised by friends and a full tank of gas furnished by Prest's father in San Bernardino, they signed up for a try at the Siberia prize. They took off on July 15, 1921, from Los Angeles to Tijuana, Mexico. From Tijuana they backtracked through San Bernardino, thence on to Las Vegas, Nevada, where they picked up some additional revenue by hauling passengers; then on to Salt Lake, and on up through Idaho, barnstorming as they went. Prest was also an excellent photographer. He took aerial pictures which sold well in communities along the way. This team of intrepid aviators barnstormed Montana cities in July of 1921 with passenger flights at Butte, Anaconda, Helena, Great Falls and Shelby.<sup>(5)</sup>

When they arrived in Sweet Grass, Prest and Bach found the Canadians reluctant to let them cross the border unless each posted \$500 cash. They did have their original stake of \$500. They cleverly manipulated the border crossing when each one, in turn, showed the same \$500 to the Canadian customs officials!

In Lethbridge, Alberta, Yankee barnstormers were not authorized to carry passengers. They contributed to the barnstorming activities of Canadian pilots along the way, however, by doing acrobatics and putting on an air show, while their Canadian friends took in money hauling passengers. In one isolated northern Canadian town, where an airplane had never been seen, Prest and Bach reluctantly were forced to refuse passenger rides with offers as high as \$50 per ride.<sup>(6)</sup>

These barnstormers moved along north with the "Polar Bear I." They came at last to Hazelton, British Columbia, where they had to dismantle their airplane and take it across a river in a boat to a suitable pasture for takeoff. Their operational problems also became even greater as they moved north. When, eventually, they arrived at Prince Rupert Island they had to land in a ball park with an adjoining tennis court. Local townspeople were persuaded to level the area between the ball park and tennis court to give more room for takeoff. The net from the tennis court, placed at the far end of the takeoff area, no doubt was one of the first arresting gears ever perfected — a technique later used by the Navy. Anyway, they got off all right and were told they could land on the beach at Rango, Alaska. Nearing Ketchikan, they ran into weather and had to backtrack to Prince Rupert Island (where they were forced to return to the ball park) only to be met



by Canadian police who arrested them for carrying passengers for hire in Canada. The mayor of Prince Rupert courtcously came to the rescue — and after contacting a member of Parliament, was able to obtain their release.

A September storm caught up with this expedition at Prince Rupert and a severe squall with high winds terminated any further flight by rolling the “Polar Bear I” into a mass of wreckage. Prest and Bach had no choice but to return home and forget their Siberian expedition.

Morton Bach continued to build aircraft in California. He was prominent in later aviation, becoming a vice president of the Lockheed Aircraft Company in Burbank, a position he held for many years. Bach, now retired, lives in Wickenburg, Arizona.

Clarence Prest retained hopes of collecting the \$25,000 prize from the Venice motion picture producer. He again made an attempt to finish the flight to Siberia in 1922. Prest departed from Buffalo, New York, early in the summer of that year, flying an OX5 Standard to Salt Lake. He then flew north to Montana, carrying passengers and barnstorming several cities, including Dillon on June 12 and Butte on June 14, then on to Helena and Great Falls.<sup>(7)</sup>

In flying from Great Falls to Kalispell, he was forced to land in Glacier Park where he spent the night under the wing of his airplane — his main discomfort being a lack of cigarettes. Taking off at daylight out of Glacier Park, he arrived in the vicinity of Columbia Falls, where he spotted some men working in a field. Prest reported that he landed “to see if he could bum a cigarette.” It so happened that nobody among those snuffers in the crowd smoked, so he again took off, flying on to Kalispell, then to Spokane and Seattle, where he shipped his airplane to Juneau. Cigarettes were then available.

Taking off from Juneau, Prest flew to Skagway, Whitehorse, Selkirk and Dawson. After he departed from Dawson, at the request of an Indian chief, he flew medicine to Indians at Eagle. Landing at Eagle, Prest reported that the Indians all took to the woods. The landing of an airplane in Eagle was then considered sufficient justification for a town celebration and all activities ceased, other than going all out for Clarence Prest.

After Prest took off from Eagle en route to Fairbanks he developed motor trouble, which forced him to land at Muskeg, near the Seventy Mile River. The “Polar Bear II” here came to grief, damaged beyond repair. Prest has related how he took an extra pair of socks, a sack of salt and some caribou meat, and started a hike toward Eagle. He found he could not cross the river so he returned to the airplane, shot himself another caribou, and with these additional provisions again started hiking out of the area in another direction. This time he found a sourdough cabin along the river where he was able to take shelter and dry out his clothes. Here a search party from Eagle found him and went back to salvage parts from his wrecked airplane. When Prest returned to “civilization,” back in Montana, he related experiences to friends in Anaconda and Butte. He is remembered by many Montana people for the aerial pictures he took, published in both Butte and Helena newspapers.

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## E. A. "Lonny" Brennan

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"Lonny" Brennan, from the beautiful Bitterroot Valley, started out in the bakery business in Missoula as a delivery boy. He wasn't afraid of work, and in 1922 he owned and operated a very substantial business, the Royal Bakery, located on South Higgins Avenue in Missoula.

The writer at that time was pumping his way through school in a Pure Oil gas station next to the bakery. Art "Steve" Stephenson, who had been in Miles City as a pilot with the Aero Miles City Club, was now running a garage and car sales agency, the Edwards Motor Company, on Front Street.

Steve used to come by the gas station. We would frequently get in some "hangar flying," as pilots on the ground are prone to do. Lonny, between deliveries of Brennan's special cream puffs, would come in to listen to our stories, which we embellished for his special benefit. Neil Keim, who drove a bakery truck for Lonny, used to come by also.

Brennan had been taken with the flying bug. We made a very informal alliance in which Brennan would buy an airplane, Steve would fly it, and I would keep it in repair. Steve, in turn, would give Brennan and me flight instruction.

Lonny accordingly purchased a K6 Standard in Spokane and he and Steve went over and flew it to Missoula. I remember Lonny telling about this trip to Spokane, his first ride on a pullman. Every time he punched the switch to turn off the light, the colored porter came and stuck his head in the curtain and asked what Lonny wanted. Lonny, with his Irish wit, enjoyed telling how the porter came by three times before Lonny found out the button called the porter and the light went out, like a refrigerator's, by closing the door. (Those pullman lights always intrigued me, too, every time I rode on one, which wasn't too frequently. They went out with the horse and buggy — also the footstool that the porter placed by the pullman car step.)

I remember the first cabin "Stinson Detrioter" that Earl Vance purchased in 1927. This airplane was all fixed up with plush seats, ash trays, and seemingly almost everything. It, I am certain, was the first cabin airplane owned in Montana. It also had a fancy wicker footstool to step on as you got into the airplane, just like the pullman car's, only Vance didn't have a porter. I have that footstool today, a prized possession, which was a present to me by Mrs. Earl Vance. John F. Matthews, a CAA inspector in Montana in 1940, is the only person in recent years to recognize the origin of this antique piece of furniture.

Back to Brennan: we kept the K6 Standard airplane tied down on a sagebrush flat between the University and the fairgrounds in Missoula. Right away, my grades at the University and the bakery business both began to suffer. Transient pilots could look forward to free doughnuts and a ride





*Lon Brennan, Art Stephenson, Frank Wiley. K6 Standard airplane, Missoula, 1923.*

Frank Wiley

to town in the bakery truck when they stopped at Missoula.

We had a pretty good airplane. The 150 hp. K6 Curtiss did better than the OX5, but it did have a few undesirable traits. It was mean to crank by hand, being six cylinder, and the acceleration of the carburetor wasn't everything to be desired. If you bounced (and we did) and gave it the gun, the motor wouldn't take. Just about the time you thought you were going to stall at twenty feet, the motor would come to life and just save you. The remedy for this situation was not to bounce – which was pretty difficult for the terrain available.

Lonny and I had acquired considerable confidence in our ability to land and take off when the K6 gave up and stopped, one day, when Lonny was flying solo near Fort Missoula. He attempted to hold it up with the stick and stretch his glide back to the landing field, but the old Standard went into a spin. I saw it make about one turn of a spin, and then it was enveloped in a big cloud of dust.

Rushing to the wreck in the bakery truck, I found Lonny being held on his feet by a big farmer in whose field the crash had occurred. He was being held up by the scruff of his neck, as it were, by the well-meaning farmer who had him firmly gripped by the collar of his leather jacket. When I ran up to Lonny he said, "Make that big so and so let me alone!" I eased him to the ground and after a few minutes he began to recover from the shock and sat up. We took him to a doctor and found that he had no injuries other than a few bruises, but the airplane was a washout with the motor pushed back into the front cockpit. Real lucky – it could have proven fatal!

We scouted around and I found another wrecked K6 Standard, the one stored in the warehouse at Chinook. This airplane, landing with a load of liquor after dark, was the one mentioned earlier that landed on the truck. The owner had never returned to claim the wreck. I bought this airplane at a sheriff's sale. We spent several months rebuilding the two wrecks into one good airplane.



*Boeing 80A airplane.*

F. H. Christensen

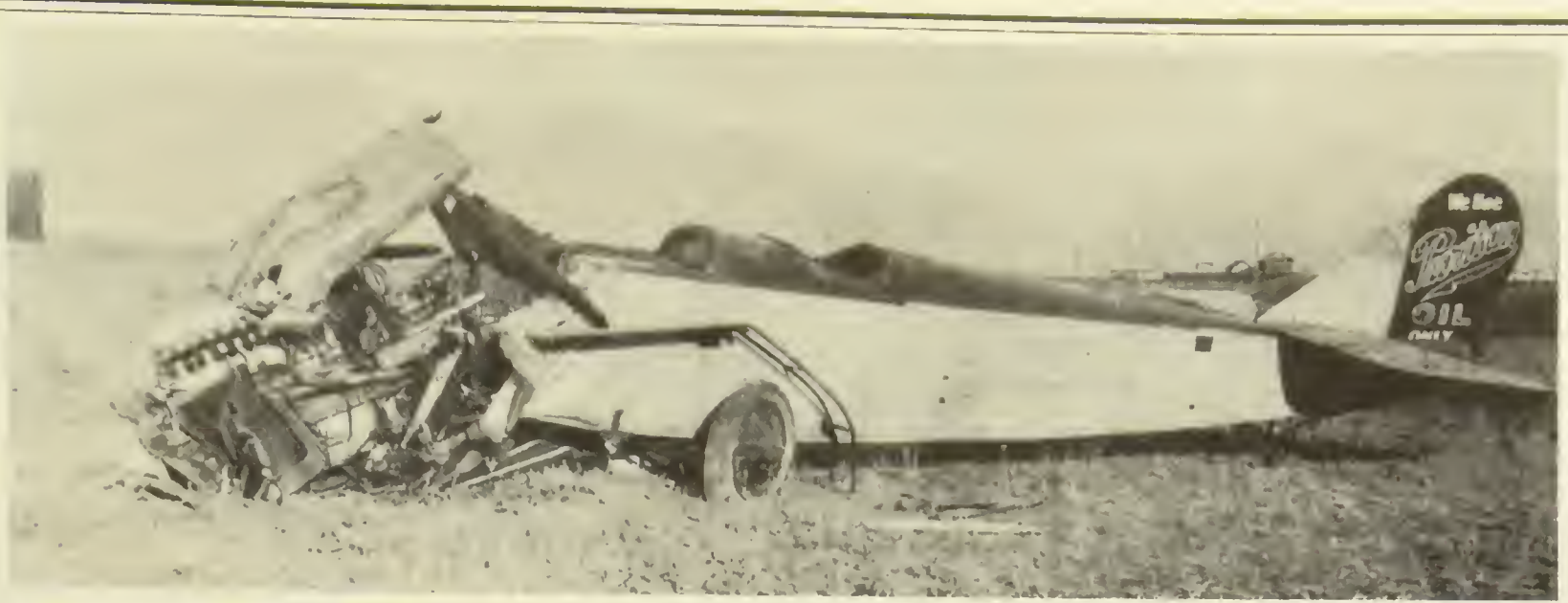
Lonny Brennan probably put the first musical program on the air in Montana, when one Sunday morning he took an old Swedish accordion player up, high over Missoula, and cut the switch on the Standard, gliding around for some time while the musician rendered several polkas for a puzzled but appreciative populace. There are Missoula people today, I am sure, who remember that aged Swede with his wrinkle-box who could really do an orchestration at the dances at Lolo Hot Springs.

Brennan finally demolished the old K6 Standard on a forced landing at Hamilton in which a chicken house got in the way. His next airplane was a Hisso Standard, purchased from Jack Lynch in Butte. This airplane, in turn, was left on MacDonald Pass following motor failure. Maybe it's still there. In the meantime I had gone to California to work for Ryan in San Diego.<sup>(1)</sup>

Lonny moved to Seattle where he flew for Vern Gorst, a bus line operator from Oregon, who had a shuttle run to Bremerton from Seattle, using Loening Amphibians. The Loening was a six-place biplane on a boat hull, first powered with a Liberty motor and then later with a Pratt and Whitney Wasp motor. Brennan became a very good boat pilot. He also checked out pilots for Gorst on another operation in San Francisco, where they operated a shuttle run between Oakland and San Francisco.

Brennan returned to Seattle where he did student instruction and charter flying for some years. Then he flew for Nick Mamer on the pioneer airline between Seattle and St. Paul in 1930. Lonny flew the Ford Trimotors on the run between Spokane and Seattle, and was probably one of the first self-taught instrument pilots in the business.





Wreck of K6 Standard, Missoula.

Frank Wiley



Wreckage of K6 Standard near Hamilton.

Neil Keim



Loening amphibian, Seattle.

Neil Keim





*Loening amphibian airplane.*

Neil Keim

Brennan used to come into Seattle with a Ford Trimotor when everyone else was on the ground. We all thought he must use mirrors to get in. But he explained in briefing me that the technique was to set his altimeter by the top of Mount Rainier, establish a heading and rate of descent, and fly for a certain number of minutes, which would bring him out over Boeing Field. Or, if he had to go around, he would climb up through the fog and return to an alternate airport east of the mountains.

"Time turns" hadn't come along yet, and he cautioned me that in using the magnetic compass to make a turn, the proper technique was to sneak up on the desired heading. If you should happen to go past that heading, never attempt to go back, as the compass card would not settle down, but continue the turn, making a 360, and approach the desired heading slower the next time. I had no trouble with these instructions, as I was very careful not to have need for instrument flying. (I had once flown through a strange country, where in the fog the trees all grew horizontally out of the sides of the hills while I was attempting a letdown. That cured me.)

In the early 1930's Brennan barnstormed Montana and other northwestern states with a Boeing 80A. He then moved to Alaska where he flew for Noel Wein and later ran his own flying service at Manley Hot Springs. Lonny established an excellent reputation and for many years served small communities and the isolated areas in Alaska.

Brennan has turned his operations over to the younger members of his organization. Now with his wife "Lindy," he lives in retirement on the Sound on Camino Island north of Seattle. Lonny has been recognized as one of the best professional pilots in the business of flying the Alaska bush country.



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# Dominic A. DiFiore

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Dominic A. DiFiore, like Steinbeck, grew up near San Jose, California. He was the son of Frank DiFiore, and very obviously of Italian descent. Lt. DiFiore enlisted in World War I, where he put in many hours as a flight instructor. He continued in the Army Air Corps for several years, and first came to Montana, from California, in 1923.

Lonny Brennan and I were flying in Missoula at that time, and I well remember when DiFiore looked us up at a dance one Saturday night in Greenough Park in Missoula. We were quite impressed with the appearance of this army second lieutenant who, even in his uniform, looked somewhat the worse for wear.

I am sure that anyone who ever met "The Wop," as he was affectionately called, has never forgotten him. He stood about 5 feet 2 inches, and was a most dynamic individual. One morning shortly after his arrival in Missoula he showed up with a black eye. When asked how he had acquired the shiner, he stated that "he guessed he would have to admit that he was a wop," as he had lost an argument on the subject with someone bigger than he was.

DiFiore came to Missoula to fly for two Spokane men who had trucked their wrecked airplane in from a field near Primrose, where their former pilot had cracked up. The two owners were named Confarr and English, and were engaged in aerial freight work, which included importing liquid products from Canada, as well as freighting mining machinery to remote areas in the Bitterroot and Coeur d'Alene mountains. DiFiore worked with us for several weeks in our improvised repair shop under the grandstand at the fairgrounds south of Missoula. We awaited with interest and anticipation his test flight of the Spokane airplane when it was finally rigged and ready to go.

This flying Italian eventually took off from a field adjacent to the fairgrounds. Holding the airplane low to the ground, he picked up all the speed possible and then did a wild chandelle to the left. This was immediately followed by a few loops which were very well executed, as he gained altitude on each loop. DiFiore continued to climb in a series of acrobatic maneuvers until he had gained considerable height. He then kicked the Hisso Standard into a spin and came down and landed. It is probable that the extraordinary show he put on was due to his realization that neither the airplane owners nor the rest of us were too sure that he could even fly an airplane.

DiFiore flew for about a year in the mountain areas between Spokane and Missoula. He did one of the first aerial transportation jobs in that part of the country—hauling pipe with an air drop to a mine out of Superior. DiFiore would tie the pipe on the wing near the fuselage and then, with an



*Missoula Aeronautical Society, 1924. From left: Dixon, Johnson, Keim, Brennan, Minnerly, di Fiore, and mascot.*

Neil Keim

ingenious release, he would drop it in the rugged area where the mine was located. This aerial delivery was the beginning of the air drops which are everyday procedure by the Forest Service in these mountainous regions today.

The next time I saw DiFiore was in California. I happened to be demonstrating Waco 10's for the California distributor in the San Francisco area. Shortly after landing on the Oakland airport in the winter of 1927, I saw an OX5 Eagle Rock dive down over the field and pull up in a chandelle followed by several loops, after which the pilot spun down and landed on the field. I turned to a pilot standing by me and remarked that I felt sure I knew who was flying that Eagle Rock. There was just one pilot who did that brand of acrobatics. The pilot with me confirmed my recognition of DiFiore before I had a chance to see who it was. The "Wop" was one of the best pilots in the business on flying technique, even though we questioned the wisdom of the acrobatics he did at low altitude.

DiFiore was killed while making a night flight between Los Angeles and San Francisco in 1929. He was flying on a non-schedule operation, carrying Los Angeles newspapers to San Francisco for distribution. It seems that the Ryan Brougham airplane had been repaired at Bakersfield, and DiFiore took off with a load of newspapers, following which a structural failure in the wing put the airplane out of control. The following quotation is taken from the San Jose newspaper account of his death:<sup>(1)</sup>

"DiFiore did much to create air-mindedness in America. As an instructor during the war he sent many pilots to France to earn undying fame. Today transport pilots, mail pilots, commercial pilots and private pilots who learned to fly under him are carrying on his work.



“DiFiore never flew within five miles of his home but he turned from his course, banked steeply over his house, and called cheerily from the cockpit: ‘Hello there, sweetheart.’ And his wife of less than a year never failed to answer with the wave of a white apron from the porch. DiFiore then would give his plane the ‘gun,’ and sail off smiling and care-free into the distance.

“DiFiore is dead. But we who are left, glory in the fact that he died at the controls. He lived up to the traditions of the air. We miss him, but live determined to carry on the work he so ably started.”

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## Nicholas B. Mamer

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Nick Mamer was a native of Hastings, Minnesota. He had been a school chum of Ben Schmitz, who came to Montana to operate a grain elevator at Dodson; and who was later with the Bureau of Internal Revenue in Helena. Nick served as a pilot in World War I, on patrol duty in the canal zone. After the war, Lieutenant Mamer came to Spokane as an early-day barnstormer. Later he carried on an extensive flight operation, establishing an airline between Seattle and St. Paul.

Nick barnstormed Montana, and was the first pilot to fly an airplane across Glacier Park to Great Falls. On the way back he had a motor failure. He loaded his damaged airplane on a flatcar, taking it back to Spokane via the Great Northern Railway.

Nick then flew extensively for the Forest Service, as well as keeping up his military flying as a member of the Spokane Air National Guard squadron. Nick flew DH's out of Spokane, Hisso Jennys for the Air Guard, and operated a Hisso Standard on his own civilian operations. He ran a flight school where several Montana pilots learned to fly, including Carl Schirmer, Penn Stohr, and Bob Johnson. Mamer was the distributor in the Spokane area for the Swallow, Travel Air, and Buhl airplanes. He made several spectacular flights through Montana, including the carrying of the Japanese earthquake pictures in 1923 from Seattle to Great Falls, where Eddie Stinson met him and took the pictures on east for eastern newspaper syndicates.

Nick Mamer made a record-breaking, non-stop flight from Spokane to the Twin Cities in a three-passenger Buhl airplane on a survey flight for the airline operation which he initiated in 1929. His *Spokane Sun God* flight with Art Walker, a nonstop refueling flight from Spokane to San Francisco to New York and back to Spokane, establishing a record which was not broken for years, created considerable press and public comment.

Mamer operated trimotor Ford airplanes in barnstorming operations through Montana, where he carried passengers at many cities, his appearance with the trimotor Ford being sponsored by Ford dealers throughout the state.

Mamer was a top pilot on Northwest Airlines when this St. Paul com-



*Nick Mamer.*

Frank Wiley



*Mamer Ford Trimotor.*

Neil Keim



pany extended operations to the West coast. His active and spectacular flying career was tragically ended when he lost the tail assembly off a Northwest Airlines airliner over the Bridger Mountains in the vicinity of Bozeman, in January of 1938. This was one of the few crashes, in this type of accident, in which the pilot had the presence of mind to grab the microphone and report that he was going down out of control due to a structural failure of the tail.

Nick Mamer's airline, barnstorming, and outstanding flying activities did much to prepare the way for wide-spread public acceptance of airline service in this region.

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## Penn Stohr

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Second only to Bob Johnson as a mountain pilot, Penn Stohr knew the rugged country of Montana and Idaho as very few people will ever have the opportunity to know it. Stohr, born in Clarence, Missouri, in 1902, came to Montana as a schoolboy. His parents settled in Plains, where Penn went to high school. He took flying lessons from Nick Mamer in Spokane between 1923 and 1926, following which he operated an OX5 Swallow airplane, barnstorming in the Spokane area and out of Plains and Superior, Montana. He was married in 1927 to Elma Garber of Plains and was employed by the U. S. Forest Service on some of its earliest beetle control spray work.

Penn moved his family to Cascade, Idaho, in 1933 where he went to work for the Johnson Flying Service out of Missoula. He worked for Bob Johnson for 24 years, with the exception of one short period with the federal surplus aircraft disposal program.

Penn operated the McCall and Cascade, Idaho, flying setup for Bob Johnson, with winter runs and star routes out of the most primitive parts of Idaho. This air service replaced sleds and dog teams long used in serving these remote areas (and operated by a rugged Idaho mountain man named Stonebraker). Like Stonebraker's activities, Stohr's flights became legendary. Mercy flights were almost everyday occurrences during the winter months when the airplane was the only contact the mountain people had with the outside world.

Penn Stohr was an easy-going fellow, courteous and well liked. He was always happy when he could light a cigar and put in his time flying or rebuilding aircraft. He lived and breathed flying, and was a skilled mechanic and woodworker as well. This dedicated cigar-smoker worried more over being caught short of cigars than he ever did about any weather or flying problems. He thoroughly knew the mountain airports as well as the limitations of his airplane. He could get in and out of a shorter field, with a bigger load, on a hotter day, at higher elevation, than just about anyone in the business. This pilot not only had an exact knowledge gained from experience



*Penn Stohr and Swallow airplane, Plains, Montana.*

Alma Stohr

in mountain flying, but he had that important and rare quality of knowing his own capability, weather characteristics, and the terrain over which he operated.

It is probable that Penn had more experience in flying ski equipped airplanes than any other mountain pilot. The technique of ski flying with deep snow required a rare judgment acquired only through experience; with a knowledge of the type of snow and the right wax to use at different temperatures and with different loads at various field elevations.

Penn served the Salmon River country for many years with scheduled mail and flight operations to Yellow Pine, Stibnite, Cascade, McCall, Warren, and the many primitive Forest Service fields along the forks of the Salmon River. Landing on the MacKay Bar on the main Salmon River on a 1600-foot landing strip with a vertical cliff staring you in the face at the other end was an experience no pilot who had been in there ever forgot.

Stohr received national recognition in 1943 when awarded a citation from the Assistant Secretary of War for Air, Robert A. Lovett, for accomplishing a spectacular and hazardous rescue of the crew of an Air Corps bomber down on Loon Lake in the McCall area in subzero weather. There was ten feet of snow on the level at that elevation. Penn spotted the wrecked airplane after the crew had been stranded in this severe weather for 17 days. He picked up two Forest Rangers, Lloyd Johnson and F. E. Powers, at Cascade, flattened out the pitch on the fixed-blade propeller of the 6000 Travel Air which he was operating on skis, and landed skillfully in the deep snow of Loon Lake. He ferried out the emaciated crew of the B-23 bomber, making several





*Wright J6 Travel Air 6000 airplane.*

Bob Johnson

incredible trips between Loon Lake and Cascade, Idaho.<sup>(1)</sup>

This incident revealed how woefully unprepared the Army Air Corps was to do rescue work. It resulted in the establishment of the Search and Rescue section of the Air Force—which has become a worldwide operation, functioning for air as the Coast Guard does for water operations.

When Johnson Flying Service consolidated all its flying operations in Missoula after World War II, Penn moved to Missoula where he did further Forest Service flying, including spraying for insect and weed control.

Penn Stohr, with 35 years of mountain flying and over 10,000 hours in the air, was killed with his copilot, Robert Vallance, on June 19, 1957, about 15 miles west of Townsend on the head of Crow Creek. They were flying a Ford Trimotor, spraying for the U. S. Forest Service on a sagebrush extermination project. Thus ended the career of a most capable and respected Montana pilot.<sup>(2)</sup>

I remember well an incident—one of many—in which Penn was dropping supplies and doing observation work on a fire for the Forest Service with a Travel Air 6000. This airplane had been a plush airliner in its day, operating out of St. Louis. It even had a rest room in the back. The Forest Service observer with Penn was Bill Ferris, later to become an airways patrol pilot for CAA.

They were about 60 miles west of Missoula, over Toboggan Ridge on the head of the Clearwater River, when a head blew off a lower cylinder on the 330 Wright engine. Penn knew he couldn't get far with the crippled engine. But he headed for the Cayuse Creek landing field and was climbing up to clear the last ridge in the Cayuse Creek area when the motor froze and the propeller stopped dead. In the meanwhile, Ferris had gone to the rest room to keep from witnessing the impact in the hopeless terrain. Penn made

it over the ridge down into Cayuse Creek, around a blind turn, and with a cold cigar in his mouth, landed dead-stick on the Forest Service field.

I flew in to pick them up the next morning. Penn greatly enjoyed telling of Ferris' fast move to the rest room where he had, on available material, written a brief last will and testament relating the cause of the crash and his wishes as to the disposal of his remains.

Such experiences were routine to Penn Stohr. He had the satisfaction of living the life he enjoyed, with pride in the knowledge that he was a top hand in his field.

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## Neil Keim

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Neil Keim started his early aviation career while driving a bakery wagon for the Royal Bakery, owned by Lonny Brennan in Missoula.

When Brennan and I were flying out of Missoula in the early 'twenties, Neil did a lot of work with us in maintaining the old K6 Standard. Actual flying time was at a premium. It took many hours of work on the ground to get an airplane into the air for even an hour. Neil, accordingly, got very little time in the air, but he did contribute much in working on the airplane.

Keim had a pleasant personality. He was liked by everyone, and followed his aviation interests by talking himself into a job selling tickets for Nick Mamer when Mamer was barnstorming his Ford Trimotor airplanes throughout the northwest. Keim soon became manager as well as agent for the barnstorming Trimotors. It was his job to contact Chambers of Commerce and officials in various communities, lining up sponsors for the passenger carrying, and scheduling the Trimotor Ford on its route from town to town.

Keim later moved to Seattle where he engaged in flight operation on Boeing Field, together with aircraft sales. He was associated with Clayton Scott.

Neil also worked with Lonny Brennan in Missoula in 1930 in freight operations for the Forest Service, with one of Mamer's Ford Trimotors. Brennan and Keim did some of the first aerial freight operations into the isolated Forest Service landing strips in the rugged South Fork wilderness country.

After Keim returned to Montana he worked for Bob Johnson. He is now living at Columbia Falls where he does administrative work, managing the stockroom for the Anaconda Company aluminum plant.

Neil Keim was one of the few early Montana bird men who had the foresight to accumulate valuable files of newspaper clippings on aviation activities. His collection covers the barnstorming operations in the area in the 'twenties. Keim has contributed these valuable newspaper clippings to the aviation history files of the Montana Historical Society and the Montana Aeronautics Commission.





*George 'Dewey' Lowers and passenger in OX5 Standard.*

Dewey Lowers

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## George "Dewey" Lowers

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Dewey Lowers learned to fly in Iowa in an OX5 Jenny shortly after World War I; and he barnstormed through Montana in 1925 with a Waco 9. I first met Dewey when he came through Scobey. He gave me an enthusiastic account of the amazing performance of this then new-type airplane. Dewey said it was a wonderful acrobatic ship. He wanted to take me up for a demonstration. I politely refused, telling him that acrobatics made me sick; however, I would like to see him go through the various maneuvers in a demonstration flight by himself. Dewey went up and showed me that he was not only a real acrobatic pilot but that his airplane did have excellent performance.

Lowers flew a Wasp Stinson for a businessman out of North Dakota. He later came to Montana, locating in Wolf Point where he became the county surveyor. Dewey continued actively flying in Montana, teaching many people along the northern Montana hi-line to fly. I again witnessed a demonstration of his acrobatic ability when he put on a show at a fair in Dodson, using a J5 TravelAir belonging to Guy Rikken of Harlem. Here Dewey did all the acrobatics in the book, with flawless technique, winding up his performance by flying inverted down the length of the landing strip about ten feet above the ground.

Dewey later became agent for the Air Coupe. He sold several of these little airplanes to Montana people. He was one of the charter members, as well as an officer in the Montana Pilots' Association.

Dewey has since moved to Pocatello, Idaho, where he operates a trailer court and keeps his hand in by flying into Idaho's remote areas for hunting and fishing. He is remembered on the hi-line as one of Montana's most active barnstormers, as well as the flying county surveyor of Wolf Point.

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## C. B. "Cowboy" McMahan

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Clair B. McMahan was raised on a ranch near Circle, Montana. He then moved to Miles City where he operated a stage line and mail routes between Miles City and the adjacent county seats of Broadus and Jordan. "Mac" personified the Montana version of a slogan that the mail must go through, "come hell or high water." He could always depend on an appreciative audience in his accounts of how he accomplished the completion of his schedules in operating this rural mail and stage service through the gumbo and cowtrail conditions of the early 1920's. Mac, dubbed "Cowboy" McMahan, never let the facts restrict his version of his many accomplishments and activities.

Airplanes had a real fascination for Mac, and about 1923 he followed a barnstorming team through the state, helping with the servicing of the aircraft and picking up some of the language used by the pilots. These barnstormers operated three Hisso Standard airplanes under the direction of Clyde Pangborn, who later made a sensational, non-stop flight from Tokyo to his home town of Wenatchee, Washington. They advertised to the world that Texaco gasoline was the only gasoline that could be safely depended upon. Following this experience Mac added many good, hair-raising stories to his repertoire with accounts of wingwalking, parachute jumps and near misses.

I have always been intrigued with Mac's story-telling ability and the mental reflection whereby, after telling a story several times, Mac got so he believed it himself.

Those of us in the flying business delighted in punching holes in Mac's imaginative activities. In desperation, supported by an understandable, dedicated interest in flying, Mac finally purchased an old, dilapidated Thomas Morse Scout airplane from Fletch Wilson, a World War I pilot who lived at Forsyth. The Thomas Morse Scout was an advanced single-seater trainer for World War I fighter pilots, built by the Bath, New York, company with which "Turk" Minnerly of Missoula had been associated in early days. This tricky little airplane had a wing span of about 25 feet and was powered by an 80 or 100 hp. "mono so pop" (single valve French rotary motor). A rotary motor has a terrific torque because of the rotating mass weight, and the whole engine revolves around a stationary or fixed crankshaft. In effect, the airplane attempts to rotate around the engine.

To successfully fly this airplane it is necessary to discourage the rotating tendency, and pilots with the know-how to fly this little beast were careful not to apply too much power below the recognized minimum air speed at which lateral control could be maintained. Applying power at speeds below this minimum resulted in the aircraft rolling around the longitudinal axis and sticking a wing in the ground. The application of the



control factor was comparable to (V1) (V2) runway characteristics of multi-engine aircraft of today.

Power was applied by adjusting both an air valve and a fuel valve with two levers which adjusted the air-fuel mixture. These levers were used in place of a throttle control on the conventional-type power plant. Additional control was gained by pressing a button on the control stick which cut out the ignition on every other cylinder, or by another button which cut out all ignition.

All of this was rather complicated for Mac (or anyone else at that time), and he was smart enough not to try to fly the "Tommy," which he kept tied to a fence west of the fairgrounds at Miles City. Mac's flying instruction at that time was all verbal or from observation. He would come into town with helmet and goggles, his clothes spotted with "600W", and tell what a nice day it was to fly, having claimed a few more flying hours sitting in his little bird tied to the fence with the motor running. These flights always took place when there were no spectators. The time was fast approaching when Mac had talked himself into the necessity of making an exhibition flight when, for some unknown reason, the "Tommy" caught fire and burned up.

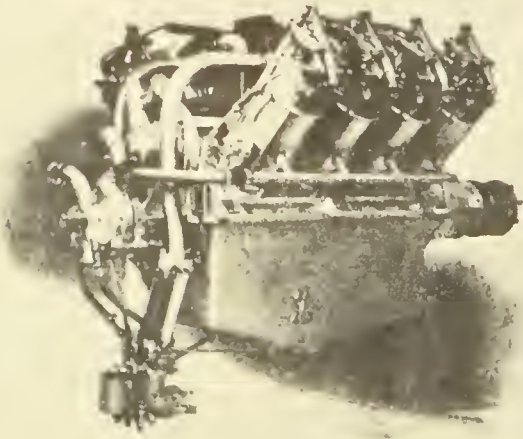
About this time Mac approached me with a request that I teach him to fly. He was discouraged in this for fear that he would be uncontrollable and once he soloed would get hurt, or — worse yet — hurt someone else. The bug had him, however, and he went to Minneapolis where he took flying lessons and purchased an OX5 Standard. He cracked this airplane up on the way home, went back and purchased another one with an Hispano Suiza motor. He made it home to Miles City that time, having acquired considerable knowledge of, and respect for, airplanes.

Mac flew surprisingly well, and because of this people began to acquire confidence in him. Those of us in the flying business had to admit, reluctantly, that he just might make a pilot.



McMahan's indisposed 'Hisso' Standard.

Glen Bishop



## THE CURTISS OX-5 AERONAUTICAL MOTOR

**T**HE Curtiss OX-5 motor has been used in the Curtiss JN aeroplane, and in other Curtiss planes.

It is safe to say that millions of miles have been flown by aircraft using it as a power plant—aeroplanes, seaplanes and dirigibles.

No power plant has shown greater staying qualities than this "old reliable" of thousands of army, navy and civilian flyers.

It is to-day being used on three continents in airships, flying boats, and aeroplanes for scores of services which peace-time aircraft are performing.

## GENERAL DESCRIPTION

### CURTISS MODEL "OX-5"

TYPE . . . . .	Eight-cylinder, Vee, four-stroke cycle.
HORSE POWER . . . . .	Rated 90 H. P. at 1,400 R. P. M. See power curve.
IGNITION . . . . .	High tension, 8-cylinder magneto.
COOLING . . . . .	Water—centrifugal pump.
OILING . . . . .	Force feed to all bearings.
BORE . . . . .	Four inches.
STROKE . . . . .	Five inches.
GASOLINE CONSUMPTION . . . . .	0.60 pounds per Brake Horse Power Hour.
OIL CONSUMPTION . . . . .	0.030 pounds per Brake Horse Power Hour.
VALVES . . . . .	One intake, one exhaust per cylinder.
CARBURETOR . . . . .	Duplex Zenith.
WEIGHTS . . . . .	Motor with propeller hub; without oil or water . . . . . 390 lbs. Dead weight per rated horse power . . . . . 4.33 lbs.
INSTALLATION DIMENSIONS . . . . .	Overall length . . . . . 55 $\frac{3}{8}$ in. Overall width . . . . . 29 $\frac{3}{4}$ in. Overall depth . . . . . 35 $\frac{1}{8}$ in. Width at bed . . . . . 12 $\frac{1}{8}$ in. Height from bed . . . . . 17 $\frac{3}{4}$ in. Depth from bed . . . . . 13 $\frac{3}{4}$ in. At carburetor . . . . . 17 $\frac{3}{8}$ in. Bed bolts (c to c) . . . . . 12 $\frac{1}{2}$ in.
EQUIPMENT . . . . .	Tools, shipping box.
EXTRA EQUIPMENT . . . . .	Other parts on special order.

## SHIPPING DATA

Dimensions	Net Wt. Lbs.	Gross Wt. Lbs.	Cu. Ft.
5' 4" x 3' 3" x 2' 8"	395	680	54



Winter flying in Billings.

Marge Logan



Interest in flying took a sudden boom immediately after Charlie Lindbergh's flight. Almost everyone became interested in the airplane, with a growing awareness that it had a real transportation potential. Distance flights and air races were the vogue. These activities stimulated student instruction, passenger rides, and aircraft sales. Scheduled airline routes became the topic at the breakfast table and the street corner.

The city of Spokane scheduled an air show and regional air meet for the fall of 1927. The program included cash prizes for cross-country flights, pylon air races, and contests for both military and civilian aircraft. One event was a cross-country race for several classes of aircraft between New York and Spokane, with stops at intermediate points where referees checked the landing and takeoff time. Cities were encouraged to put up prizes, give service to race participants, and stage local aviation programs while they were passing by or stopping for fuel. Rules, entries and timing were under the auspices of the FAI and NAA, and various aviation companies sponsored race entries.

Cowboy McMahan had attained considerable stature as a pilot by this time; and the town of Miles City, to assure its air-mindedness, put up the money to purchase an airplane and enter their cowboy pilot in the race. This airplane was an American Eagle, a two-cockpit biplane powered with a souped-up OX5 engine and christened "The General Miles."

A souped-up OX5 engine meant that the motor had compression increased by machining off the cylinder flanges at the risk of a cylinder blowing off; installing Miller overheads which were spring-loaded rocker arm fittings; and putting on a Scintilla (hotter spark) magneto. The ignition was retimed and, in some cases, the carburetor was moved up to a position between the banks of cylinders, thereby shortening the intake manifold. This last change was of questionable value, due to the need for installing a fuel pump.

The propeller pitch was flattened out, too, and all of this resulted in about a 10 hp. gain in the 90 hp. engine and an increase in rpm. from 1400 to 1500. The valve springs and push-pull mechanism of the OX5 engine just couldn't keep up with any more than 1500 rpm. Anyway, Mac had a fast airplane in his class; probably it would do about 95 to 100 miles per hour at sea level.

Other Montana entries included Bob Johnson of Missoula in an OX5 Swallow, and Art Stephenson, then of Dillon, in an OX5 Waco.

I was then operating the flight service at Miles City, and concluded that the smart thing to do was to stay home and sell gasoline and service to the 40 or more contestants when they came by. I was also quite certain that Cowboy McMahan wouldn't get to New York with the hopped-up American Eagle; my judgment was no doubt influenced by prejudice, because Mac was becoming a tough competitor of mine. It just wouldn't be logical to admit that he or his airplane had a chance in this race with the pros.

Mac, with Jack Highdecker, a factory mechanic who went along to keep the OX5 going, did get to New York; they did get in the race, and they outgunned many other contestants through bad weather in Pennsylvania,



McMahan and Stinson station wagon patrol airplane.

C. B. McMahan

## Partington's Skyways for Safety



**C. B. McMAHON, Pilot**

"The Flying Cowboy"

*Short Hops & Sightseeing  
Cross Country Trips*

SAVE TIME

SAVE MONEY

**Learn to Fly!**

Our School is a Good School

Billings flight operation advertisement, 1928.

**W**HEN you step into a ship, for a time-saving trip—two things are necessary for your care-free enjoyment of your air-time.

FIRST—confidence in the ship, and SECOND, confidence in the pilot.

In entering the field of aviation, we spent many weeks in determining that The American Eagle ("Master of the Skies") was the plane meeting with greatest success as the most practical and economical for training, passenger flying and commercial purposes.

From the beginning The American Eagle has been recognized and accepted by experienced pilots as an exceptionally well designed and constructed ship with performance ability and a safety factor far above the average.

Mr. McMahan, with many years of experience, is chief pilot of Partington's Skyways. Those who know Mac, know his ability.

*Harry Partington*

Phone 1365

Billings, Montana

Marge Logan



placing in the prize money.

The Miles City boys really felt they got their money's worth as they listened to Mac's account of the race, flying blind through the Alleghenies and orienting himself in the fog by a nut tied to a string hanging from the instrument panel, with the wings iced up and one cylinder on the OX5 cutting out due to the cold, wet fog. That American Eagle proved to be fast — it had to be to stay up, heavy as it was!

Following this claim to fame, Mac gave the people of eastern Montana many enjoyable rides at fairs and rodeos.

He had been a former rodeo rider and now was the envy of both the cowboys and their girl friends who had known him in the past.

After the New York-Spokane race, Cowboy demonstrated airplanes and did flight instruction for O. E. Lee of Billings, who was the distributor for the American Eagle airplanes. Lee, who also operated an automobile finance company, had the edge on some other airplane dealers in the state who were less materially endowed. This Lee-McMahan combination was tough competition and I well remember losing several good airplane prospects to them, including two of my students, Elmer Schneider of Baker and Johnny Wise of Miles City.

Mae later moved to Minneapolis, where he instructed for a flying school and flew for Universal Airlines. In Minneapolis he became a test pilot on the Mohawk Pinto, a flashy, low-wing airplane built there, whose flat spinning characteristics were never overcome. One of the Cowboy's best stories was how the Pinto would flat spin, and when he climbed out of the cockpit onto the wing to jump with a chute, the airplane stopped spinning. When he climbed back in again, it would spin. With this cycle repeating itself, he brought the airplane down and landed it while standing on the wing.

Thereafter, Mae went to St. Louis where he got a job patrolling pipelines for an oil company with a Curtiss Robin. As pipelines became more numerous, his airplanes also became more numerous. He, with his son, Clair B. McMahan, Jr., now operates a pipeline patrol business out of Monroe, Louisiana. Mac has been in the pipeline patrol business now for some 30 years.

Clair McMahan did a hitch in the Air Force in World War II and was stationed at Romulus, Michigan, with the Ferry Command. Some years ago an interesting account of his activities was published in a weekly magazine, which relates how Mae ferried war-weary B17's home from various theaters, bringing back both defective aircraft and defective bombs for study by design manufacturers at Wright and Patterson fields. This story was a priceless piece of aviation reporting. It is probable that the author went to considerable expense in picking up the tabs for drinks while he acquired the startling facts from which the story was fabricated.

Clair McMahan, with an unquenchable interest in and love for aviation, has contributed much to developing this industry. He has been fortunate in being associated with work that he likes and to which he is totally dedicated.

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## Fred Woodside

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Fred Woodside, a most air-minded Montanan, actually was born, in 1883, in Marysville, Missouri. His folks started west with him when he was six weeks old and settled in the Willow Creek area, later moving to the old mining town of Glendale, a silver camp out of Dillon in southwestern Montana.

Fred, as a young man, took International Correspondence School courses in electrical, steam and mechanical engineering. In Dillon, he served an apprenticeship (as did the Wright brothers) in a bicycle shop. He became recognized as an expert mechanic and electrician and, by 1921, operated his own garage and automobile sales agency. Woodside was well-known throughout western Montana. He had a keen interest in aircraft and flying.

Early in 1925 Woodside purchased a Waco 9 airplane and took flight instruction from Art Stephenson. He then purchased a carload of seven Waco 10's which were shipped into Butte in 1927.

Steve, then running a flying school in Butte, contacted me in Los Angeles, where I was demonstrating aircraft for the California Waco distributor. I came to Butte and assembled the aircraft, which had been shipped knocked down and packed in a railroad express car. All of these aircraft had been sold, so Steve gave each one a test flight as I finished assembling it, then delivered it to the proud purchaser.

Woodside's Waco 10 was blown away in a windstorm in Hamilton. His next airplane was a Curtiss Wright four-passenger air sedan powered with a Challenger motor. Fred flew this until he gave up flying, as many pilots did, with the advent of the security restrictions of World War II.

In 1941 Fred Woodside was considered the oldest Buick dealer west of the Mississippi river, and the oldest Chevrolet dealer in Montana.<sup>(1)</sup>

He became one of the best-known and most respected persons in western Montana, where he lived until his death on October 18, 1955.

A close friend of Fred's very ably commented on this dedicated Montanan when he said, "He was quiet of demeanor, yet overflowing with love of life and people. He found little to censure and much to praise in his friends."

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## The Thomas Matthews

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*Thomas K. Matthews* was the son of a doctor who practiced in Miles City and who introduced the writer to this world. Dr. Matthews later moved





Waco 9 airplane owned by Fred Woodside, Dillon. From left: Woodside, Mrs. Woodside, and Art Stephenson.



Fred Woodside and Curtiss Wright air sedan powered with Challenger motor.

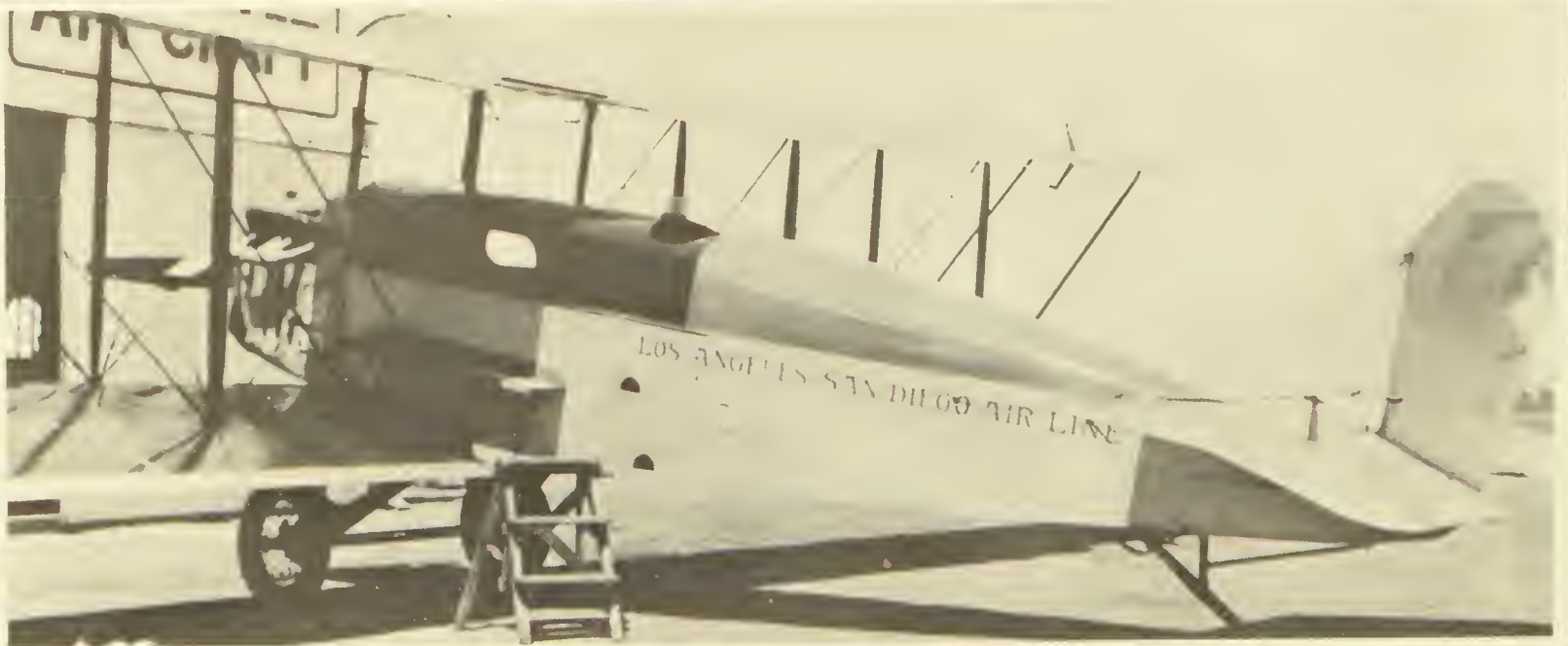
Alfreda Woodside



Tom P. Mathews (with hat) and Vance Breese, Ryan sales and test pilot, 1927.

Thomas P. Mathews





*Ryan cabin Standard.*

Thomas P. Mathews



*J5 Eagle Rock at Miles City, Montana.*

Frank Wiley



*Great Lakes trainer, powered with Cirrius engine.*

Frank Wiley



to Missoula and Thomas K. grew up there, enlisted in the army in World War I, and became an army pilot.

*Thomas P. Mathews* was born in Merrill, Wisconsin on November 30, 1902. He moved with his parents to Roundup in 1909 where he grew up. He had an interest in journalism and while still in high school, was the Roundup reporter for the *Billings Gazette* at the age of sixteen. Mathews attended the University of Montana in the class of 1924. He majored in journalism, later obtaining his degree at Peoria Tech at Peoria, Illinois, following which he became a reporter on a Chicago newspaper.<sup>(1)</sup>

In 1924 when I was flying for Claude Ryan out of San Diego, this aggressive, expanding aviation company had need for a public relations and advertising man. I had been closely associated with Mathews when we attended the University, and recognized his ability. So when Claude Ryan commented that he needed a public relations man, I suggested he contact Mathews in Chicago. As a result, Tom came to San Diego and took charge of the public relations work for the Ryan Company and the Los Angeles-San Diego airline.

Mathews proved to be an original and able advertising man. When the five-place Ryan Brougham was put into production after Lindbergh's flight, he introduced the technique of featuring this remarkable airplane in the national aviation trades magazine with a descriptive story of its performance, supported by paid advertisements in the magazine by every manufacturer of accessories that were included in the production of this, at that time, advanced-type aircraft. This advertising technique has been used repeatedly since.

Tom Mathews was dynamic in the promotion and operation of the Ryan-operated Los Angeles-San Diego airline, which made daily flights between Tijuana, San Diego, and Los Angeles in 1924. This was the first scheduled airline in the country to successfully operate on a fixed route with published fares and schedules.

When Mathews reported for work in San Diego, I remember riding with him in one of the cabin Standards that the Ryan Company had built. This particular airplane had a cabin for four passengers, with the pilot sitting in an open cockpit behind the cabin. There was a little window in the back of the cabin through which the pilot could lean down under the dash and look into the cabin, and in turn the passengers could look through into the pilot cockpit.

We made a flight over San Diego Bay and Balboa Park and had returned to Dutch Flat. Charley Widmer was flying the airplane; I was pointing out the sights to Mathews. As we were landing, Mathews looked out the window on his side of the cabin, turned to me, and calmly said, "We're going to crack up." I, with equal calmness said, "No, this is the way they come in when they land." He smiled and repeated, "We're going to crack up." I repeated, "No, they always land this way." He pointed through his window and said, "Look out there."

I leaned across and looked out Mathews' side, and was understandably disturbed to see a Model T Ford "bug" without a top converging with the

airplane at the point where we were about to touch the ground. I had just time enough to turn around and shout to Widmer to pull up; he opened the throttle and pulled the airplane up before the wheels touched the ground. We felt a sharp bump, then Widmer circled the field again, came in and landed. The car was sitting in the middle of the airport. We got out of the airplane and walked over to the car, the driver of which was crouched down under the steering wheel. There was a big dent in the hood of the car where the tailskid had creased it when the airplane passed over the car.

The driver of the car didn't seem to be injured but he was in a state of shock, wild-eyed and speechless. When we asked him if he was hurt he didn't answer, so we sat him up in the seat and he placed his hands on the steering wheel. The three of us pushed the car until the engine started, then stood there until car and driver disappeared in the distance across Dutch Flat. We never did know this fellow's name, or how (or if) he got over his fright. That was Tom Mathews' first airplane ride. He was thereby initiated into the flying business which never experienced, for him, a dull moment.

Tom Mathews took flight training from Red Harrigan, a Navy pilot flying for Ryan's. He and I built up a substantial amount of flying time by getting up at daylight and borrowing one of Claude Ryan's OX5 Jennys, with which we would fly over to North Island and chase jackrabbits. An OX5 Jenny and a jackrabbit had the same top speed.

At that time the Army had a motor-overhaul shop on one side of the island, where there was a seaplane ramp. The rest of the island was unobstructed, except for a dirigible mast on the side toward the harbor entrance. This gave us an unrestricted area in which to fly and to practice our ingenuity in rabbit chasing. Mathews became a pretty proficient pilot, and probably to this day Ryan doesn't realize how much he contributed to our flying experience!

Mathews moved to St. Louis with the Mahoney Aircraft Company which purchased the Ryan Aeronautical Company assets after the Lindbergh flight. There the company continued to produce its Ryan Brougham. He later returned to the West coast, associated with the Essig Aviation Advertising Agency in Los Angeles.

Mathews continued to keep his hand in flying. He later lived at Monterey, California, where he also became one of the outstanding polo players in this country. When World War II came along, he was a civilian flight instructor in a contract school training pilots, located at King City, California. He continues his residence in Monterey, where he has served as chairman of the airport board when the Monterey Airport was developed into an active municipal utility. Mathews continues his keen interest in flying, now owning two airplanes, and he has over the years made contributions in writing for various aviation magazines.

The other *Tom (T.) Matthews*, whose aviation activities will be covered, was a Wyoming ranch boy raised on the T7 Ranch, about thirty miles south of Gillette. He graduated from the college at Spearfish, South Dakota, getting a degree in football. "Tommy" was the third generation product of an old Texas trail-herd family. Horses just weren't fast enough for him, so he



let Russ Halley at Rapid City talk him into the airplane business. Matthews purchased a Hispano Suiza Eagle Rock in 1927 and hired a pilot to fly for him, as he wasn't quite up to riding this aerial bronc by himself. His pilot quit him in 1928, leaving him with a worn-out airplane, tied down on a ridge at the ranch.

In the spring of 1929, Matthews, due to the warm, sunshiny weather, developed an urge to fly. He telephoned me at Miles City, asking if I would come down to his ranch and fly his Eagle Rock to Rapid City where he could trade it in on a new airplane. Jaek Hotaling and I drove down to Gillette and then out to the T7 Ranch. I was not enthused to see the decrepit Eagle Rock, with its wings tattered and torn, and with flat tires where it had wintered out in the sagebrush.

We worked for three days patching up the airplane and replumbing the gas system, as one of the header tanks in the upper wing had cracked open during the winter. The compressed-air pump located on one bank of the engine was also inoperative. We finally got the airplane flyable, with the fuel system operative only by a wobble pump in the pilot cockpit, loaded in our tools, and took off for Rapid City—Matthews in the meantime driving my car to meet us there.

As we went over Newcastle, Wyoming, I began to see that it was really going to be a tedious trip, continually hand-wobbling the fuel from the tank to the carburetor, so I cut straight across the Black Hills instead of going around by Belle Fourche. This was a memorable experience, as I had misjudged the physical effort involved in operating the wobble pump. My left arm gave out over the middle of the Black Hills, at which time I was forced to twist around in the fuselage and operate the wobble pump with my right hand, at the same time trying to keep from shoving the nose of the airplane down as I leaned across the stick.

When we reached Rapid City, Matthews had already traded off the airplane for a new J5 Eagle Rock. He persuaded me to go to Colorado Springs to take delivery, in an arrangement whereby I would take the Eagle Rock to Miles City and operate it for him on a lend-lease basis.

We did pretty well at air races and barnstorming the Eagle Rock that summer, and then purchased a Great Lakes trainer that fall; however, Old Man Winter got the best of us and we had to terminate our flight operations, with the result that the winter ate up all our profits.

Matthews had a wonderful personality. He loved barnstorming, and worked with me all during the summer of 1929. His experience with a throw rope probably was the key factor in the success of our wild-west refueling of Mamer's airplane, the *Spokane Sun God*.

In later years Matthews returned to Wyoming and then to South Dakota where he was a federal law enforcement agent. He met sudden death during World War II when he and another United States Marshal were killed cornering two bank bandits on a heavily snowdrifted highway in the Black Hills area.

This flying cowboy was a material contributor to aviation in the barnstorming days.

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# Robert R. Johnson

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Bob Johnson, noted Missoula pilot, was one of several boys in the family. His father, Dad Johnson, had been county assessor for many years.

Bob and Bubbles Johnson are probably the best-known aviation couple in the state. They had their first airplane ride before they were married, with “Wop” Di Fiore in Missoula in a Hisso Standard in 1923. After that airplane ride, Bob’s battery shop lost its glamor, and he became convinced that aviation was in need of his support. He became associated with other Missoula buffs in the flying game, including Walter Beck, the “Wop,” Lonny



*Bob Johnson and Swallow airplane.*

Bob Johnson



*Bob Johnson, Travel Air 6000 airplane, and dog team at Cascade, Idaho.*

Bob Johnson





*Dick Johnson refueling Travel Air.*

Bob Johnson



*'New' Standard airplane powered with J5 engine.*

Bob Johnson



*Johnson trimotor Ford at Big Prairie forest service airport.*

Bob Johnson

Brennan, Dick Hale, Romey Deschamps, and Neil Keim. Bob took flight training under Nick Mamer in Spokane in 1926. He then purchased an OX5 Swallow from Nick and set up shop in the flying business next to the Missoula fairgrounds. This location later became the county airport, known as Hale Field, named after the flying county surveyor, Dick Hale.

Bob entered the Spokane Air Race in 1927 with his new Swallow, and those who placed were given a run for their money from New York to Spokane.

Bob's flying business accelerated following the Lindbergh flight. His increased flying operations expanded to include student instruction and barnstorming, with the U.S. Forest Service indicating an interest in fire patrol with a potential in air freight.

Bob took in his brother, Dick, as a partner, and with Dick's mechanical ability, they made an efficient team. He taught Dick to fly and acquired the first of the then larger-type airplanes in the state, a "6000" Travel Air six-place cabin monoplane powered with a 300 hp. Wright engine. This big airplane, which could carry fifteen hundred pounds of freight, was just what the Forest Service needed to compete with pack mules in supplying the many remote areas in the mountains.

The Johnson brothers developed air freight and the air drop procedures used in delivery. Nothing delighted Bob or Dick more than making a bulls-eye on the cookstove in a remote camp with a bale of sleeping bags. Their accuracy became noticeable, to the point that the Forest Service made a formal protest, resulting in a panel system marking the point "x" where the load was to be delivered.

Aerial delivery proved to be faster, cheaper, and more dependable, since the final blow to the mules' dignity occurred when they were, on occasion, airlifted out of isolated areas after becoming marooned due to unseasonal storms.

These flight operations became known as the Johnson Flying Service. They acquired additional equipment, including a five-place New Standard open cockpit airplane and a Wasp Trimotor Ford which could carry two tons and get out of a fifteen hundred foot landing field in a mountain meadow at five thousand foot elevation.

Their logistic figures by this time became impressive, and forest fire-fighting supply organization in Region One was built around this unique flight operation.

Dick Johnson loved to fly. Probably in his active career of some ten thousand hours and 15 years, he carried more pounds of freight by air in the mountains than any other man ever did in that era of aviation.

Bob Johnson, assisted by Dick, as well as Frank Derry—an old head at exhibition parachute jumping—then perfected the smoke jumper technique, which revolutionized the whole firefighting procedure. The Forest Service executives in Washington could not ignore the impressive figures on fire suppression or the economy of Region One in fire control costs. By the early 1940's, smoke jumper techniques perfected by the Johnsons and the Forest Service personnel at Missoula were adopted in other regions.



Our military people sent observers out to Missoula to learn the techniques and inspect the specialized equipment—which included the “Derry” parachute equipped with steering valves for positive control in tricky air currents, and for landings in areas bristling with dead snags and rocky cliffs.

These Missoula aviation experts perfected the methods of training and equipment used by both U.S. armed forces and the armies of our allies in World War II, with jump teams and paradoctors trained in Missoula seeing service throughout the world.

After World War II, the Johnson Flying Service extended operations to include the dropping of chemicals for fire suppression as well as the distribution of chemicals for insect and weed control. This company now is the biggest of its kind, supplying the Forest Service and other agencies with specialized air service in areas throughout the North American continent.

The continued success of the Johnson Flying Service may be attributed to the fact that Bob recognized the value of employing well-qualified people, along with the economy and importance of having top equipment and excellent maintenance. Bob’s aggressiveness and his knowledge of the mountain areas in which he operated proved the value of the airplane to this very specialized pioneer work of the U.S. Forest Service.

The flight operations of Bob’s company gradually expanded into Idaho, with fixed base operations at McCall and Cascade engaged in the star mail service and forest operations in the remote Salmon River country.

This company developed the most modern maintenance and repair facility in the northwest, all under the efficient management of the company vice president, Arthur Pritzl, who has been with Bob for thirty years.

The Johnson Flying Service, like many general aviation operations, reached maturity with the advent of the contract pilot training program just prior to World War II. This Montana flying school, then affiliated with the State University and with a well-diversified background of flying experience, contributed much in the training of some 800 U.S. pilots for all branches of the armed forces, for the airlines, and for the industry.

This company, headed by Bob Johnson, today is the biggest of its kind, operating some 50 airplanes and helicopters, and employing some 100 people. The Johnson Flying Service is one of Montana’s more impressive business operations.



*Dick Johnson Mountain Pilot*

Bob Johnson

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# Helen Lee

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Helen Lee was the daughter of John "Jack" Lee of Fort Benton. Jack came to Montana in 1876 to ranch at Black Coulee on the Marias River. I had the pleasure many times of visiting him in Los Angeles where the Lees lived in 1927.

Helen graduated from high school at Fort Benton, took business courses at Lethbridge, Alberta, Canada, and was employed by a Canadian company in Edmonton for several years. Immediately after World War I, while in Edmonton, she became interested in aviation. Her first airplane ride was with "Wop" May, Alberta's pioneer bush pilot.

In the early twenties, Miss Lee moved to Los Angeles. There she was employed by a flying company at Clover Field, Santa Monica, and had her



*Aircraft fleet owned by Corporacion Aeronautica de Transportes, Torreon, Mexico.  
6 Lockheed Vegas, 2 Ryan Broughams.*

Helen Lee



*Helen Lee, Theodore Hull, and Mexican officials.*

Helen Lee



first instruction in flying with “Doc” Whitney, a well-known TWA pilot of the ’thirties. Helen was then secretary to Theodore T. Hull, a stockbroker who owned a flying company at Clover Field. He headed up the American Aircraft Corporation which was later located on Angeles Mesa Drive in Los Angeles.<sup>(1)</sup>

American Aircraft Corporation had the California distribution of Waco and Fairchild aircraft in 1927. Hull turned the business management of the company over to Miss Lee. The company grew to important stature for that time, employing some 12 pilots, and engaging in extensive passenger carrying, aircraft sales, and flight instruction, with aircraft sales running into several hundred aircraft between 1927 and 1929.

The boom after the Lindbergh flight was at its peak and I saw one contract for Fifteen Hundred airplanes that Helen Lee negotiated with a San Francisco businessman who was backing Joe (Red) Barroughs, a former Ryan pilot who later was a “wheel” with Pan American, and who at that time was the Oakland Waco dealer.

I was employed for two winters by the American Aircraft Corporation, doing flight instruction and aircraft sales demonstration, flying throughout California. Personnel employed by the corporation at the time I flew for them and at the time Miss Lee ran the operation included J. B. Alexander, sales manager; and Art Burns and Alan Berry, who were in turn, chief pilots. Flight instructors included “Chub” Gordon; Garland Lincoln; Ben Lyon, a movie star; Howard Ailer; and several others who became prominent in later aviation activities in California. It was during this time that the writer gave Miss Lee flight instruction and soloed her in an OX5 Waco 9. Miss Lee, being the business head of the operation, however, was not encouraged by her employer to continue flying or to become a pilot.

In 1929, following the stock market crash, and with the depression moving in on the economy of California, Hull and American Aircraft Corporation set up shop in Mexico. Miss Lee went along to run the administrative end of the Mexican “Corporation Aeronautica de Transportes.” This company initiated and operated airlines between Brownsville, Texas, and Mazatlan, Sinaloa, Mexico; as well as El Paso, Texas, and Mexico City, with headquarters in Torreon. This airline (CAT), had the blessing of the president of Mexico, due in part to assistance rendered in getting key personnel to trouble spots “pronto” on a couple of embryo revolutions. They would probably be flying jets today, except for the unfortunate incident of owner Hull flying into a cloud stuffed with one of Mexico’s high mountains. Hull was killed while flying a new Wasp Bellanca from the factory in Torreon in 1931, thus ending the activities of the airline and the aviation career of a very capable aviation executive.

Helen Lee today operates a printing business in North Hollywood, California. She has been secretary of the OX5 Club of California for many years and is now editor of a Club publication, *Air Pioneers*. She is recognized by the old timers of aviation in California as the best informed authority of California aviation history of the boots and breeches era—a Montana girl with a very colorful aviation background.

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# Dick Logan

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One of Montana's most colorful airport managers should be credited with contributing materially to the early aviation development of the Treasure State. He participated in the contrasting transition of transportation from baled hay and oats to high octane and JP4.

Dick Logan, the first manager of the Billings Municipal Airport, and the first airport manager in Montana, was born in Helena in 1889. His father was one of our early day educators in the state, later becoming a rancher and dealer in livestock in Billings. Dick, at the age of 10, rode a horse from Helena to Billings in 12 days when the family took up residence there. He later had the opportunity of riding in the front seat of a Northwest Airlines airplane with his long-time friend, Earl Hale, making the same trip in some 41 minutes!

Logan's father had become somewhat cynical of formal education procedures, consequently neither Dick nor his three sisters received a formal education, other than being tutored by their very capable father and mother. They did, however, have four years' schooling at the Chicago Conservatory of Music, and as a family orchestra, played on various entertainment circuits. For several years they furnished the sound effects at a Billings opera house,



*Dick and Marge Logan, Billings.*

Marge Logan



in the days of legitimate stage entertainment. Dick continued using his musical talent as a member of the Al Bedoo Shrinic band in Billings.

I remember very well attending the dedication of the Bozeman airport, at which time the Bozeman high school band participated in the program. Dick Logan also attended as an official representative of Billings. As usual, he was informally attired in the clothes of his primary occupation, which pertained to stockraising. We were watching a member of the high school band who seemed to be having difficulty with the three keys on a trumpet. Dick asked if he could borrow the instrument. He took over and led the band through several pieces with a rhythm that was immediately noted and enjoyed by the spectators.

Dick Logan became the Billings airport manager in 1926, in view of the fact that he had homesteaded adjacent to the site. He continued this position for some 31 years, during which time his capable management developed the Billings airport into the most active port for transient pilots in the state. Marge Logan, Dick's wife, worked right along with him on the airport, operating a cafe which attracted hungry pilots from all over the west, many of whom, in the early days, couldn't pay for their meals. I know of several instances in which pilots (including this one) didn't have money to buy gas, either; Dick would stake them to enough fuel to get back home or into the business again.

Dick Logan was a true western personality, well known and long remembered by people whom he met and with whom he associated in his job of rendering excellent service to the users of the Billings airport facilities. There are many prominent Americans in both military and civil aviation who



*Dick Logan, Billings airport manager.*

Marge Logan

considered Dick Logan one of their most valued and admired acquaintances.

Logan, for some reason, was frequently associated with humorous incidents. One of the first developments on the Billings airport was the designation of the field as an airport site, by the symbol of a circle made of rocks. In the years that followed, the servicing and hangar facilities were established further west than the original site. The circle of rocks was later discovered by archeologists who associated it with the Indian wheel in the Big Horn Mountains and with the Aztec calendar wheel, causing considerable interest in the Billings area as the most northern point occupied by the ancient Mexican civilization. Logan did nothing to detract from the theory of the Aztec migration; however, he had his own personal opinion as to the origin of the rock circle on the Billings rimrocks.

Dick Logan was among the founders of the International Northwest Aviation Council. I don't believe he missed a meeting in some thirty years. He contributed much to that Council's activities, and he readily imparted his keen knowledge of airport management and experience to other officials associated with airport development in many other cities in the northwest as well as in northwest Canada.

An international incident developed at an INAC meeting in Alberta when someone stole Logan's five gallon hat. He initiated proceedings to secede from the organization and withdrew his membership until the next year, when he was formally presented with a new hat of the same style and of the vintage which had been originated by John B. Stetson.

Dick Logan developed a unique method of snow control on the Billings airport. He rolled the runways during the time it was snowing, windrowing the snow in furrows parallel to the runway on the upwind side. With this method, the Billings airport was kept open for wheeled aircraft in the winter-time, when nearly all the other airports in the northwest were closed. This was before the days of high speed plows and rotary equipment.

Dick Logan, first official airport manager in Montana, personified the individualistic type well known in the early days, and characteristic of the people of this part of the country. He most certainly contributed much to air development, which in turn contributed greatly to Montana's economy.



*Dick Logan and helper towing J5 Travel Air racing airplane, flown by Ted Wells in the New York-Spokane races.*

Ben Harwood



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# George Allen

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I flew into Butte late in the afternoon of the day Charlie Lindbergh arrived there on his tour of the United States and Montana; he was en route to appear on the program of the Montana State Fair, early in September, 1927. I was flying a Ryan M2 monoplane and, as I landed, I noted another Ryan sitting on the field. As I shut off my engine in the tie-down area I was really surprised when an old California flying partner of mine, George Allen, ran up to me with his characteristic big grin, announcing that he had become associated with Jack Lynch. Jack was the Butte pilot then promoting an airline between Chicago and Seattle. Allen advised that he was flying the "Mexican Revolution Ryan," and to be careful what I said about the background of this then-obsolete airplane. (Jack Lynch was a prospect with whom he was closing the sale of the airplane.)

This comment by Allen brought back to my mind the history of this airplane, which was one of the first Ryans built. It was one of four of the M1 type which had been sold to a faction in Mexico which was fomenting a revolution against the existing government—not an unusual activity in those days. The border patrol and immigration people in stopping a truck on the Mexican border two years before, had found it to be loaded with munitions and weapons. One of the occupants of the truck had in his pocket a receipt



*George Allen and Ryan M1 airplane.*

Frank Wiley

# RYAN MONOPLANE

The Newest, Fastest, Safest Ship in the State

**\$5**

Gives you a 25-mile hop including a flight over the Continental divide and the city. Rates on cross-country flights on application.

**IN THE AIR DAILY  
FROM 1 P. M. UNTIL  
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Morning flights and cross-country hops by appointment.

**TAKE A HOP AND EXPERIENCE THE  
THRILL AND ROMANCE OF THE AIR.**

**Northwest Airways of Montana**

Pilot, George Allen of Clover Field, Los Angeles

*Advertisement in Butte paper, 1927.*

Agnes Robinson

for a deposit on four Ryan airplanes. Customs and Immigration immediately descended upon the Ryan operation in San Diego. They confiscated the airplanes, which were seized and later released to Ryan for resale, with the exception of this one which Allen had flown to Butte. It was kept for evidence in the matter of the legal charges brought against the smugglers, who were planning on using the four aircraft in the revolution.

Those of us on the field at San Diego dubbed this airplane the "Mexican Revolution Ryan," as it sat around the hangar for months, accumulating dust and obsolescence. Another cycle in its history was initiated when the Manasco Company of Los Angeles purchased it for use as a test bed for their Salmson-Manasco conversion. They modified this famous 260 hp. French World War I engine into an air-cooled radial motor which, as converted, developed about 280 hp. The airplane was powered with this converted Salmson motor at the time Allen flew it to Butte for subsequent purchase by Jack Lynch and the Chicago-Northwest Air Transportation Company. It was a safe enough plane, but lacked refinements and modifications which had been made in the Ryan during the two years previous to 1927.

Allen flew out of Butte, working for Jack Lynch and the Northwest Air Transport Company. I remember one unusual incident which Allen later related to me of his experience in a takcuff on the Butte airport. Airplanes were constantly developing mechanical failures in those days and it was pretty well assured that difficulties could be expected, with "when and where" being the unknown quantity.

Allen said he was taking off on a passenger flight on the Butte airport, the elevation of which is slightly over 5,000 feet. He noticed puffs of dust ahead of him, in line with the takeoff path; then felt the airplane losing





Ryan's Los Angeles airline terminal, 1925. OX5 Thomas Morse Scout airplane, Hisso Standard airplane.

Frank Wiley



Douglas Cloudster. First Douglas airplane built.

Frank Wiley



Ryan M1 survey plane, flown by Allen.

Agnes Allen

speed but couldn't determine what was wrong at first. Following this, it rolled to a stop with the motor still turning up. Allen shut the throttle and, getting out to inspect the airplane, found to his amazement that there was no propeller on the front.

Apparently as he opened the throttle for full power to the Salmson, the propeller bolts sheared just before the airplane had sufficient speed to leave the ground. The puffs of dust he had seen were the points at which the propeller tips made contact with the ground ahead of him, as the propeller took off without the airplane. The only damage was the failure of the propeller, hub and bolts. I don't remember if they ever found the propeller.

Allen and I were both associated with early-day flying with the Ryan Company in San Diego. He was a South Dakota boy, graduating from Pierre high school in 1918, then enrolling in the Army Air Corps, taking flight training at Brooks and Kelly Fields, Texas. Allen completed training and left the Army in 1923 as a second lieutenant. He came to the field in San Diego, I remember, when I was flying for Ryan in the fall of 1924; as we were starting an airline to Los Angeles, he was then hired as a pilot.<sup>(1)</sup>

George and I both flew for Ryan on various operations, including the first scheduled airline operation between San Diego and Los Angeles. This airline, operated by the Ryan Company, used J1 Standard airplanes, modified and built into four-passenger cabin aircraft, with the pilot sitting out behind in a cockpit. Ryan also operated one 10-passenger airplane, the "Cloudster," the first Douglas ever built.

I remember one incident that took place while George was flying the Los Angeles-San Diego run. He was scheduled to take off from San Diego, northbound, on the afternoon that Billy Mitchell was to make a speech there, defending and supporting the justification for further aircraft development versus walking foot soldiers. Allen, being a disciple of Billy Mitchell's, tried to beg off on taking the scheduled flight; but as there was no relief pilot he had to make the run. Allen then phoned Red Harrigan, one of the boys on the north end of the run, to meet him at San Clemente and take the run on to Los Angeles so that he could return to San Diego and hear Mitchell's speech.

Red Harrigan started from Los Angeles but cracked up at Long Beach due to a motor failure and was unable to get to San Clemente. Allen told his passengers that he was having motor trouble and that another airplane would be in to pick them up. Following this, he thumbed a ride on the highway and returned to San Diego in time to hear Mitchell's talk. I never did find out how long the passengers sat there in the airplane on the San Clemente emergency strip; but I'm quite sure that their interest in air travel diminished following Allen's departure. It may be remembered that this incident occurred at a time in scheduled airline transportation when arrival at a destination was not considered to be of major importance.

When Pacific Air Transport was started in 1927, Allen flew the first inaugural flight between San Diego and San Francisco. He later made survey flights, establishing beacon sites along the route for the U.S. Department of Commerce. He continued to fly for Pacific Air Transport during the time



that airline operated on the west coast. Allen later flew Ford Trimotors for Maddox Airlines on the same route. When this run was taken over by United Airlines, he was the senior pilot on the San Diego-San Francisco run, basing in Los Angeles.

George Allen was one of the pioneers in the development of instrument flying techniques and in the use of radio. He was recognized, on the west coast, as one of the best authorities on bad weather flying. This was supported by his excellent record of completed schedules and runs. Allen continued to fly for United Airlines until his death came from pneumonia, in October, 1935.

Jack Lynch and Bert Mooney of Butte operated the old Ryan M1. Finally the airplane met an undignified end when Mooney put it on its back in Dillon, following which the discouraged Ryan resisted all further attempt to rebuild it.

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## Stanley Cavill

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Stanley Cavill was one of three Harlowton pilots who started their flying in 1927. He was born in Billings on March 18, 1904, and as a boy lived on the OK Bar ranch, which was located east of Shawmut. Stan probably saw his first airplane at a Harlowton fair in 1915 when Otto Timm made exhibition flights there. He learned to fly in 1927, in Miles City; in an American Eagle operated by "Cowboy" McMahan.

Stan returned to Harlowton where he, Herb Halloway and Herm Henrickson purchased a Waco 10, forming a company which was known to them as the H. H. and C. Airways, Inc. Each of these three pilots had proved that he could fly an airplane by soloing without the benefit of a formal launching



*Herm Henrickson, Stan Cavill, and Herb Halloway.*

Stan Cavill

by a flight instructor. They immediately went to work in the new flying business. Cavill taught Bob Baxter to fly; and his two partners hauled passengers at every opportunity for \$5 a head.

Stan has related how he and Herb Halloway were on a flight to Belt from Harlowton in the wintertime when the needle valve on the carburetor of the OX5 in the Waco froze up, causing the motor to miss and sputter. Stan climbed out on the wing, reached in the cowl to loosen the needle valve, getting the sleeve of his jacket covered with gasoline when the carburetor flooded. The exhaust stack promptly set his jacket afire. Halloway landed the airplane in a snow-covered field where he quickly extinguished the fire on Stan's jacket and then put out the fire caused by the flooding carburetor, which threatened the plane.

The proximity of the water pump to the needle valve on the carburetor was the cause of many such OX5 engine failures. With the water pump located immediately over the carburetor, the leaking of the water pump packing nuts was a continuing problem. Oftentimes water leaked down on the needle valve of the float chamber which, being under a vacuum, sucked the water into the carburetor, thus plugging the jets. In this case, the water had leaked into the top of the carburetor, freezing the needle valve so that gasoline could not enter the float chamber. The precarious operation related by Cavill could have been totally disastrous, but is very understandable and accepted by those pioneers who have flown behind OX5 engines.

There were several homemade airplanes built in Montana during the 'twenties and early 'thirties, and Cavill had a standard \$100 fee for test-hopping such "crates." Among others he flew a Delta-wing airplane built by a rancher south of Roundup. This plane was powered with a Velie 5-cylinder, 65 hp. engine. Stan said it had surprisingly good stability and flying characteristics.

Cavill also test-hopped a Heath Parasol built by the Herman brothers near Broadview. The Heath Parasol was an early do-it-yourself airplane



*Heath Parasol airplane.*

Thomas P. Mathews



manufactured in kit form in Chicago. It was powered with a four-cylinder, air-cooled Henderson motorcycle engine. The complete kit, together with instructions, could be purchased from this mail order aviation supply firm. Several of these airplanes were built in Montana, one by a Great Northern telegrapher at Kremlin, Charles Petrie; and another by a power company or telephone company service man in Laurel. This little airplane, though underpowered, was quite practical. Many Montana pilots got in their first wobbly hours behind the sputtering motorcycle engine, even though such flying was wisely confined to the first thousand feet above the ground.

The "Harlowton Airways" lost their Waco 10 in 1929, when thieves broke into the hangar and set the airplane on fire. Following this incident, Stan purchased an OX5 Travel Air which he operated commercially. I remember his stopping at Miles City on a charter trip, at which time he flew in with a Mr. Paul Haines, an official for a chain of fur farms with operations in many parts of the country.

Cavill and Haines flew into Miles City in February of 1929 when the temperature hovered around zero degrees and the ground was well covered with snow. They were both dressed in sheepskin-lined flying suits. When Cavill got out of the airplane I assisted in putting on the motor and cockpit covers. When he opened the baggage compartment behind the rear cockpit, he disgustedly hauled out a sheepskin-lined flying boot and tossed it in a snowdrift beside the airplane, commenting that one boot wouldn't do him much good.

Stan then explained that he normally carried his flying boots in the rear cockpit and that when his feet got cold on this flight he was only able to find one boot, which he put on. His other foot got so cold while they were flying along that he thought he might as well freeze both of them, so he took off the boot he was wearing and tossed it over the side, assuming that he had lost the boot which he now found in the luggage compartment. With today's cabin heaters, it is difficult to appreciate the discomfort experienced in the



*Waco 10, Harlowton.*

Stan Cavill

old days of open cockpits and no heat. It took continual checking to see that ears, nose and feet were not frozen in flight.

Cavill went to work for National Parks in 1933 as a copilot out of Butte on the 247 Boeings. When National Parks Airlines was purchased by Western Airlines in 1937, he transferred to Western Air, flying for this airline for 31 years except for an interlude of 3½ years in the U.S. Air Force, beginning in 1942. In the service, Stan served as a staff officer with the Troop Carrier Command. He left the war and the Air Force as a Lt. Colonel, returning to Western Air in 1946. He was appointed chief pilot for Western Air in 1956 and then became a jet pilot with their expanding operations. As operations chief for Western Air, Cavill made his last jet flight on March 9, 1964, bringing a 720 Boeing into Los Angeles from Minneapolis, where the FAA sixty-year age limit grounded him from further flying with the company.

Stan now acts in an advisory capacity for Western Air. He has purchased his own private airplane and has returned to Montana, residing in Hamilton.

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## Billy Combes

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Billy Combes, probably Montana's first flying undertaker, was a barnstormer in the 'twenties. He became interested in airplanes when John Hesser came through Sidney in 1920, carrying passengers in an OX5 Jenny. Billy went for an airplane ride, then had Hesser take up his two daughters, Esther and Genieva. Esther continued her interest in flying, later becoming the first licensed commercial woman pilot in the state; another first for the Combes family.

In 1927, Bill Combes bought his first airplane, a Waco 9. Earl Vance, the previously mentioned barnstorming pilot, married Billy's daughter, Esther, as a related incident to giving Billy flight instruction.

Billy hired a pilot named Lacey to fly for him, and sent his airplane around to carry passengers at various fairs. It later turned out that Lacey was a fugitive pilot from Minneapolis, having allegedly stolen a Waco 9 in Minneapolis from Wold-Chamberlain Field, following which he helped the local boys look for the lost airplane for several days, and then departed from a remote cow pasture for Montana. The law caught up with this airplane rustler later in the summer, and he and the stolen airplane were returned to Minneapolis.

Billy Combes engaged in several businesses in Sidney, including his profession of undertaking, a moving picture theatre, and several apartment houses. He became a highly proficient pilot and flew for many years, owning several airplanes.

I remember Billy telling of an incident which occurred in the early spring. One of his undertaker customers had just expired on a ranch in a remote region near Circle, Montana. It seems that the snow was just going



off, and the gumbo roads in the area were impassable. Billy flew out to this ranch to pick up his customer. Fortunately the subject of the story had expired sitting in a chair, Billy explained.

Combes placed his dead passenger in the front cockpit of the airplane and made a hairy takeoff out of a soft field. Billy said that as he pulled the Waco out of the mud he could see he wasn't going to clear the fence, so he turned, intending to fly parallel with it. It must be remembered that the wheels on a Waco 10 landing gear hung down about two feet when the airplane was in the air. Billy explained that, as he turned to miss the fence it passed from his view. He realized, immediately, with recognizable uneasiness, that he was flying directly over it.

When the anxious pilot eased over one way to get away from the fence he could hear the fenceposts clicking on one wheel; and when he eased over the other way, the fenceposts clicked on the other wheel. He flew, perhaps, a most anxious half-mile down the fence line before he finally got off of it. Combes substantiated this story by showing me the scratches on the streamlined discs inside each wheel. The passenger "never batted an eye," and didn't seem a bit perturbed about the experience, as Billy expressed it.

I am certain that Billy Combes was the first flying undertaker in Montana. The use of aircraft by undertakers and their customers is now recognized as a very material segment of general aviation flying in this remote and vast region.

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## John Fox

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"Johnny" Fox learned to fly with Bert Mooney in Butte in 1927. He later became a part owner of the old Butte Aero Sales Company. As such he engaged in general aviation activities including barnstorming, student instruction, aircraft sales, early charter flying and crop spraying.

I well remember the first time I met Johnny Fox. He had come to Glendive with Bert Mooney to take part in an air show in 1929. Mooney flew a J5 Travel Air, and Fox, a J65 Travel Air (as Butte Aero Sales was the Montana sales agency for Travel Air at that time).

I was operating a J5 Eaglerock, which proved to be the fastest airplane at the show. We staged a three-pylon race, with the Glendive Air Show sponsors putting up a purse for both first and second place but nothing beyond that. Fox gave a good account of himself. He outflew Mooney, who was handicapped by having an airplane that was just too heavy for the number of horses in the nose.

Fox later set up his own flying company in Butte, shortly after Mooney moved with Western Airlines to Salt Lake. The Fox Flying Service of Butte did extensive flight training under the new civil pilot training program, and John Fox continued his career as airport manager at the Butte public airport

for many years. John also taught two of his brothers to fly; and engaged in agricultural flying after World War II. He has been very active in the development of the Montana Pilots Association and the Montana Aviation Trades Association.

In operating the Fox Flying Service, Johnny Fox taught many pilots who are now flying on major airlines. He also sold airplanes to quite a few people in the Butte area who had learned to fly with him. He has since moved his crop spraying operations to Dutton, where he has, over a period of years, developed a clientele of regular customers. Fox recently reduced his activities to a one-man operation, with agricultural flying being his major activity.

John Fox along the years has accumulated more than 18,000 hours of flying—a span of 35 years—and is still going strong in the crop spraying business. He is recognized now as the dean of general aviation in Montana, as well as an authority on the use and application of agricultural chemicals. He continues his active and useful interest in the policies of the Montana Aviation Trades Association.

John Fox has proven well that local level flight operations, when conducted as a sound and conservative business, can be a substantial and profitable activity, even in a low-population region.

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## *Al Gillis*

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Al Gillis, very well known throughout general aviation circles in Montana, was born in Great Falls in 1905. When he finished high school he worked in a service station and then traveled for an oil company, in the course of which he took some flight training in Spokane with Nick Mamer in 1927. The following year Al became associated with Herb Halloway in the joint ownership of an OX5 Robin, hauling passengers and doing student instruction in the Great Falls area. Al went on to engage in flight operations with different aviation people of that time, including Bev Davis, who later became an early flying rancher in the Stanford area, and Earl Hanson of Chinook, who did commercial flying on the hi-line.

Gillis has been very active in student instruction and aircraft sales. An example of his sales ability became apparent years ago when he sold a 40 hp. Taylorcraft to a 350-pound customer in Cut Bank. This man couldn't fly, and the Taylorcraft couldn't get off the ground with the owner and a pilot. This airplane owner never did get a ride in his own airplane; but Gillis made the sale!

Al became a Rearwin distributor in the Great Falls area in the mid-thirties. He also was distributor, at one time, for the Barling airplane, the state agents being Booser Brothers of Conrad. Al continued his service station in Great Falls but carried on his aircraft sales as an extracurricular activity.





*First carload of airplanes to be shipped to Montana by Gillis Flying Service.*

Al Gillis

Al chuckles over an incident when he climbed into a J5 Eaglerock to give Cliff McBratney of Augusta a check ride. After they were in the air, Al found to his consternation that there was no stick in the front cockpit. He said he kind of “wished” McBratney around the field and down on the ground, at which time Cliff made a very good landing with the encouraging smiles that Al gave him.

Among other people in the Great Falls area who took flight instruction with Al were: “Chick” Brown of Rudyard; Mark Quinn, who later flew for Northwest Airlines; Joe Charteris, who has long operated a leading hardware store in Great Falls; and “Spots” Selby, who became a mechanic for Northwest Airlines. Selby later went on to be maintenance chief for West Coast Airlines. He is now in charge of maintenance for Bonanza Airlines at Las Vegas.

During the civil pilot training days, which started immediately before World War II, Gillis operated contract flying schools at Great Falls, Havre and Billings. He also became distributor for Piper Aircraft for Montana; and at one time he held the distributorship for Piper aircraft in all the western part of the United States, including California.

Al today continues to operate the Piper agency for Montana, along with an airplane supply business at the Billings airport. He probably has the widest range of experience in general aviation sales and service of any operator in the state.

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# Jack Hotaling

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Jack Hotaling, another “cowboy” pilot, was raised in Miles City. His father, Guy Hotaling, worked for the Milwaukee Railroad and was recognized as an accomplished musician. Jack learned to play a saxophone about the time he learned to walk, and he and his father as a violin-saxophone band were in constant demand all over eastern Montana for engagements at country dances. Jack finished high school and one year of law in Minneapolis, and then decided that he wanted to be a pilot.

Hotaling enrolled for flight training with me in Miles City in 1927, paying for part of his course and working for flying time. He was one of the best-coordinated students that it had been my pleasure to instruct — and no job around the airport was too tough for Jack — so we got along fine. Jack was an excellent ticket salesman and he loved barnstorming. Like any successful barnstormer, he would rather fly than eat; and occasionally we had to make that choice.

About this time we took delivery on a new Great Lakes trainer. When I ferried it home from the factory I was so enthusiastic about its flying qualities that I didn’t take time to check Jack out, but just told him to get in and fly it. This hot little airplane cost \$4,200 and we both knew that was a lot of money. After the seventh pass at the runway, which was too short on one end, Jack got into the field. I know we both sweated that one out. My enthusiasm for his flying ability and the airplane had warped my judgment in the evaluation of his then-limited flying experience.

Jack Hotaling went out to Portland where he took additional flying instruction from Tex Rankin; following which he joined up with a band on a cruise boat going to South America. In a west-coast port in South America he, together with another venturesome embryo pilot-musician, took on a job flying for a political group which just happened to have some German World War I airplanes. They were offered high wages and short hours, with plenty of fringe benefits, and very shortly had an opportunity to prove their flying ability from a mountain airport covered with a layer of very thin air.

Jack’s partner attempted his takeoff first; and showed, by wrecking the airplane, that he had much to learn. The employers took a negative view of losing one of their limited number of airplanes. Jack’s account of their hurried departure gave one the impression that they hadn’t waited for their pay. They worked their way home in the hottest spot in the boiler room of a tramp steamer. When Jack later showed up at the Miles City airport, looking for work, he wasn’t too difficult to deal with.

We once did a job of bombing an ice jam at Rosebud with Cliff White’s American Eagle. This technique required that the “bombardier” light a twelve-inch fuse, from a cigar, in an open cockpit. The other end of the fuse was attached with a cap to six sticks of dynamite. With a cockpit full of





*Jack Hotaling.*

*Mrs. Jack Hotaling*

bombs, it was quite important to keep in mind which fuse to light and which bomb to toss overboard.

Jack smoked one and a half boxes of fifty-to-the-box, five-cent panatellas in two days, these flavored by the fumes of burning powder. It took a person with a strong constitution and an optimistic outlook on life to do this, and he had both qualifications.

Hotaling did student instruction and passenger hauling through the depression years in the 1930's, together with being a musician and operating a string of juke boxes. When the pilot training program started before World War II, he immediately qualified as a flight instructor. Jack spent the war years at a contract school near Tucson, Arizona. There he imparted his flying skill to many military combat pilots who later expressed appreciation to him for teaching them how to get the most out of their airplanes, and how to survive the pressure of war flying, where some eighty per cent of the casualties resulted from operational errors rather than enemy engagements.

Jack returned to Montana after the war and engaged in crop spraying, exhibition flying at air shows, and general aviation in the Miles City area. He was the man who taught Governor Tim Babcock how to fly, and then flew for Governor Babcock as an executive pilot until the time of his death on December 20, 1954.

There are many pilots today, both military and civilian, who are proud to tell you that Jack Hotaling taught them how to fly.

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# Earl Hale

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Earl Hale, born in Harold, Texas, in 1902, was raised on a ranch and farm. He came to Montana in 1922 as an enlisted man with the 58th Infantry, being stationed then at Fort Missoula.

After completing his army enlistment, Hale played professional baseball with city league teams in Missoula, Livingston and Billings. He worked on a ranch on the Shields River for Jim Kennedy, and then moved to Billings, where he worked for Yellowstone county. Here he learned to fly.

Vern Lucas became Hale's first flight instructor. In 1927, Hale flew with Grady Woodard and Bob Westover in their flight operations, known as the Billings Air Transport, as well as the Scenic Airways. In 1928, Hale operated an OX5 long-wing American Eagle in Glendive, flying for and with Dick Reed, who was the Ford automobile dealer there. He also taught several Glendive boys to fly, including a Northern Pacific railway engineer, Dennis Kelly, as well as a roundhouse foreman named Cliff Brewster.

In 1928 Hale accepted a job flying for State Senator Schnitzler of Froid. He worked for the Senator for a year and a half, following which he again barnstormed out of Billings. In 1931, he went to the Wyoming Air Service, flying as an airline pilot for this company for two years, using Stinson airplanes between Billings, Cheyenne and Denver, Colorado.

Wyoming Air Service became Inland Airlines. Hale flew for this company, with other pilots including Dick and Joe Lefrink, Bob Garrett, Sam Moser, Herb Halloway, Al Lucas and Ken Turner, during this pioneering period.

In 1933, Hale accepted a position as pilot for Northwest Airlines, then operating between St. Paul and Seattle. He worked for this company for 30 years, finally retired in 1963, having acquired the maximum retirement age of 60 and some 30,000 hours of flying time. To be exact, his log books show that he flew 29,612 hours.<sup>(1)</sup>



*Grady Woodard with Earl Hale selling tickets. OX5 Eaglerock at Terry, 1928.*

Grady Woodard





*Earle Hale, airline pilot.*

Marge Logan

Earl Hale enjoyed almost his full adult lifetime of flying experience. He was of venturesome nature and (even though he had learned in the army not to volunteer for anything) he stepped forward one spring day in Miles City, offering his services to light fuses on bombs I was then dropping on an ice jam. Hale lasted about two trips before he became ill. I asked him if the turns were too steep. He said, "Hell, no, but I never smoked a cigar before!" The other pilots present, including Cliff White and Roy Milligan, nicknamed him "Pansy" Hale, and they continue to call him "Pansy" to this day!

I remember another time, in Billings, when Earl invited me to ride with him while he threw out handbills over the town for the Chamber of Commerce, to advertise a merchants' day there. A reporter from the *Gazette*, with whom I had gone to school, showed up to go along and write up the publicity of the aerial handbill delivery. This schoolmate of mine didn't know that I had learned to fly. So Hale and I put on an act in which Hale offered to show me how to run an airplane. I followed his simple instructions while my reporter friend became more and more nervous. Then as my instruction progressed, I tried a landing and made it, with Hale in the back

seat. The reporter, by this time, was so glad to be down that all he wanted was to get away from those “two clowns” who had tried to kill him. Selling flying to the public wasn’t important; or rather, we hadn’t found out that it was to us in those carefree days.

Hale, while flying for Northwest, was caught over Billings, one night, with a Lockheed 10A. There was a solid overcast, no ceiling, and no alternate. He finally made it down on instrument with the help of the Lord and by the Braille system — and with less than twenty minutes’ gas! When he finally got on the ground, Mitchell, his copilot, jumped out wringing wet. He scooped up a handful of dirt, handed it to the first passenger off the airplane, saying, “Feel that, you lucky so-and-so!” Dick Logan, then Billings airport manager, was in on that one with railroad fuzes and cans of lighted gasoline, as this was in the days before high intensity (or any intensity) lights.

Another Hale episode involved an eastbound flight in severe thunderstorm conditions. Reporting to the company radio operators and on schedule as “over Superior”; “over Missoula”; “over Drummond”; these “check-ins” were followed by a phone call from Hamilton (40 miles south) to Bob Marasich, the Missoula radio operator, in which a local pilot in Hamilton reported that an airplane had been circling there in a thunderstorm for 45 minutes. Marasich contacted the eastbound flight by radio, advising of the Hamilton report. A brief, “Thank you,” was the laconic reply. Radar has stopped all of that philosophy of postponing the reporting of a problem until we get it worked out. Hale wasn’t lost, he was just puzzled as to what town he was circling, with his ranges drowned out by static. The adage that a pilot who has never been lost, has never flown anywhere, was a pretty sound analogy until recent years.

When World War II came along, Hale directed flight training of both civil and military crews on the Curtiss C46 twin-engine cargo military aircraft. This was an accelerated program when this new and untried aircraft first came off the assembly line. The school was operated by Northwest Airlines at Billings. When his crews had been trained, Hale then delivered a group of some 50 aircraft to Chabeau, India, via the South Atlantic and Africa, without losing an airplane. He, with other Northwest pilots, had already led many B17 bombers to Alaska; and they had transported personnel and material needed to develop the Alcan Highway. He was chief check pilot at Edmonton, Canada, for Northwest crews flying north in those hectic days.

In 1947, Hale surveyed company routes to Hawaii, Tokyo and Shanghai. By choice he then flew on Pacific runs until forced to retire by FAA regulations.

This tough-looking, big Texas fathered many of Northwest Airlines’ top hands of today. He put them through their trying days of copiloting. And when he slapped their wrists away from the gear-up lever, they weren’t sure whether or not they could carry on, with one arm in a sling!

The contrails you watch today from your front lawn got where you see them because of able, stable pilots like Earl Hale!



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# Dr. Herbert Hayward

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Dr. Herbert Hayward, like so many, was a veteran of World War I. A practicing surgeon in Hamilton, he was recognized during the 'twenties as one of Montana's most capable physicians. He had learned to fly, with Bert Mooney, in the late 'twenties. Mooney commuted from Butte to Hamilton to teach the doctor and other members of his family to fly on a Curtiss pusher and an OX5 Robin.

Dr. Hayward's first airplane was the Curtiss Robin. He participated in several aviation ventures in the Bitterroot Valley; and for a time even operated a flying school on the Hamilton airport. Hayward was a member of the first Montana Aeronautics Commission in 1945, representing the Montana Pilots Association. He devoted his time generously to the promotion and development of aviation in our state. This Hamilton physician and a man of many interests, was also a capable and active pilot who continued to fly until well past 70 years of age.

"Doc" Hayward was loved and respected by all the pilots who knew him. He was a chain smoker, and I will always remember how he used to light a cigarette, never taking it out of his mouth after it was lit. The ash would get longer and longer, staying intact for a fantastic length of time. I found it very difficult to concentrate on what Doc was discussing, as my interest was diverted while I waited for the ashes to drop on his vest.

Doc Hayward had an enthusiasm for flying which was immediately transmitted to those with whom he associated. He never realized any profit from the flying business, but he most certainly contributed generously to impart aviation developments in the region.



*Dr. Herbert Hayward and Mrs. Hayward, on Montana air tour.*

Frank Wiley

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## Eugene E. Wilson

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Former Navy Commander Eugene E. Wilson, whose grandfather, John T. Wilson, settled in Montana in the Gallatin valley immediately following the Civil war — having brought a locomotive boiler and grist mill across the plains from Eau Claire, Wisconsin by ox team, while enjoying the security of the boiler and protruding flues being mistaken by the Indians as the barrel of a “heap big gatling gun” — was one of the nation’s early Naval aviators.

Wilson’s pioneer father was one of the civilian scouts who helped chase Chief Joseph and the Nez Perce Indians over Lolo pass. In 1897 he came to Helena as a receiver for two defunct banks. Here Eugene went to school, later spending several summers on an 8,000-acre ranch east of Helena, known as the Spokane Ranch, which his father also administered.

Graduating from Annapolis in 1908, Wilson was recognized as having a marked ability in mechanical engineering. He continued his career as an engineering officer in the Navy and was an outstanding member of the Navy rifle team, participating in several international matches.

Eugene E. Wilson saw service as a staff officer in World War I. As such he witnessed the surrender and scuttling of the German fleet. Learning to fly in the early ’twenties, he first served on the Langly, a converted Collier, and the first U. S. Naval aircraft carrier. He became Chief of Staff of Aircraft Squadrons Battle Fleet, then Aid to Staff Commander in Chief of the battle fleet.

Resigning from the Navy in 1930, Eugene Wilson entered the aircraft manufacturing business, following which he held the position of president of the Hamilton Standard Propeller Company; the Chance Vought Corporation; the United Aircraft Corporation and the Sikorsky Aircraft Corporation. He became vice chairman of the Board of Governors of Aircraft Industries of America in 1944, and now is a director of the Aetna Life Insurance Company and the Hartford National Bank.<sup>(1)</sup>

This versatile Sea Eagle is the author of a biography on Navy life “The Gift of Foresight,” which is required reading at the Academy. He wrote a dynamic book on aviation entitled “Slip Stream” (McGraw-Hill, 1950). Wilson has many other accomplishments, being both an international authority on airpower and wild life photography.

Wilson has a warm and continuing interest in Montana, and in Montana history, as evidenced by the fact that recently he donated a valuable Charles Russell bronze to our State Historical Museum at Helena, in memory of his pioneer father.

Eugene Wilson, at 78, is hale and hearty. He commutes between Hartford, Connecticut and Miami aboard his yacht, *Salar IV*, which is his home. His interest in world aviation continues.



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# Bert Mooney

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Bert Mooney is one of the more durable examples of the old-time, frontier pilot. He has had a broad experience in mountain aviation. Born in Billings, in June of 1900, he moved to Butte at an early age. He finished high school in Butte and then attended Los Angeles Military Academy, in California, where he had his first airplane ride at Clover Field during World War I.

Jack "Cupey" Lynch taught Bert to fly in 1927 in a Hiss Standard owned by Matt Alexander. Alexander had been taught to fly by John Westley (Jack) Hesser, a World War I pilot from Whitehall, who later was a telegraph operator at Silver Bow.

Bert Mooney then worked with Lynch and Alexander in the flying business in 1928, doing student instruction, barnstorming and aircraft sales. He was Montana agent for the ground-loving Lincoln Page airplane, and later for the TravelAir airplane.

Bert started several people on their aviation careers by selling them Lincoln Page airplanes, including a banker named Emswiler of Ekalaka, who employed Kenneth Beer and Johnny Worth as pilots. A Lincoln Page was also sold to Clarence Urie of Livingston. Bert and John Fox, while



*Curtiss Wright pusher airplane.*

Ray Woods



*Curtiss OX5 Robin airplane.*

training students, washed out two Lincoln Pages in a spectacular mid-air collision at Butte, from which they and their students walked away under their own power.

In 1929, Bert took on the Travel Air agency, selling Travel Airs to Perry Moore of Two Dot; Stan Cavill of Harlowton; Bob Johnson of Missoula; and Don Thompson of Anaconda. With the consolidation of Travel Air into the Curtiss Wright organization, Mooney took on this line and introduced the first Curtiss Junior to Montana in 1930.

The Curtiss Junior was one of the first of the so-called "light" aircraft, a small, high-wing, tandem monoplane powered with a Zekley pusher engine of about 40 hp. The Zekley three-cylinder engine had a nasty habit of blowing off cylinders. This condition was somewhat remedied by a modification which included fastening the cylinders to the crankcase more firmly with added wires and turnbuckles. Mooney used this airplane for student instruction; also for coyote hunting in the Big Hole country — a pusher airplane being ideal — with the gunner sitting in the front cockpit and nothing ahead of him to obstruct his view. Mooney flew into the ground with this Curtiss pusher one day while pursuing a coyote. It seems the controls got fouled up with an extra can of gas. Bert said he didn't find his shotgun until the next spring when the snow melted.

The Mooneys had four sons, all pilots who have continued in the flying business tradition: Jay (John) Mooney, an engineer with the Aero Space Center at Maroc Lake in California; Al Mooney, with Frontier Airlines (who got his ATR at 23 years of age) at that time the youngest pilot in the country to make his Air Transport Rating; William D. Mooney, with North Central Airlines; and Robert O. Mooney, with Eastern Airlines.

Mrs. Mooney, formerly Johanna Murray of Butte, is also a pilot, having been soloed by Al Lucas away back in 1931 in an early Curtiss pusher.

In 1932 Bert Mooney went to work as a copilot for National Parks Airways in Butte. He flew under the watchful eye of Art Stephenson and Felix "Chief" Steinle, then operations manager of National Parks Airways.

Bert tells of the time when a migrating duck came in through the windshield of a 247 Boeing, plastering its feathers and insides all over Steve's face and knocking him out cold. Bert thought the duck's insides were Steve's brains. He declared an emergency, thinking he had a dead pilot on his hands, or rather, on his shoulder. Bert saved the day. But in aviation circles it is said that his report — in an ear-splitting falsetto, coming over the radio into the operations office — would have been a priceless recording!

In 1937, when Western Airlines took over National Parks Airways, they also took over Bert. He became Chief Pilot for the Salt Lake-Calgary run, a position which he held ably for twenty years. Mooney continued to direct the operations of Butte Aero Sales and Service when he retired from Western Airlines in 1961. He has now accumulated a total of some 34,000 hours flying time, and is still going strong.

When I interviewed Bert recently, he was flying a lawn mower in Butte at 5,000 feet and acting as copilot for Mrs. Mooney, at their attractive home near the Country Club golf course.



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# National Air Races

SPOKANE, SEPTEMBER 19-25, 1927

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The enterprising people of Spokane must be credited with a very material contribution to the barnstorming pioneer era of aviation when they staged the National Air Races, then sponsored annually by the National Aeronautic Association (NAA), the United States affiliate of the Federation Aeronautique Internationale.

These early National Air Races were held at Felts Field (the Spokane municipal airport at that time). They were scheduled for the dates of September 10-25, 1927. The epic show included static and flying exhibitions of both civilian and military aircraft, with airplane races and demonstrations of performance and skill between various classes of civilian aircraft and between various arms of the branches of the military service. The program also included races from New York to Spokane for two classes of civilian aircraft. In addition, there was a non-stop race also on the program. Similar races from San Francisco to Spokane were scheduled. All races carried substantial cash prizes for the winners, contributed both by the aviation industry as well as Spokane people and industry. All judging of contests was guided by NAA standards; with timekeepers and officials furnished by that organization.

Interest was keen among both spectators and contestants, while people throughout the country kept an eye on the events; even though they were not able to attend because of distances.<sup>(1)</sup>

In the New York-Spokane races 17 entries in the Class A race (over 200 hp.) and 27 entries in the Class B race, with three entries in the non-stop race, were recorded.

There was \$43,000 in prize money for the 58 entries in the trans-continental contest. Forty-two airplanes actually got off from Roosevelt Field, Long Island, at one-minute intervals, in the great free-for-all which would end at Spokane.



*Taper-wing Waco, flown by 'Tex' Rankin in New York-Spokane races, 1927.*

Frank Wiley



*'Cowboy' McMahan and a factory mechanic, with Miles City entry in National Air Races, 1927.*  
Glen Bishop



*Stinson Detroiter with J4 engine, National Air Races.*  
Thomas P. Mathews



*Westland Oil Company Ryan M2 airplane, 1927.*  
Frank Wiley



Montana had three entries in the Class B race: Bob Johnson of Missoula, flying an OX5 Swallow; Art Stephenson of Dillon, flying an OX5 Waco 10; and Clair "Cowboy" McMahan of Miles City, flying an OX5 American Eagle. These Montana pilots did well; they all completed the race in good time; but not in first place. N. C. Charles of Richmond, Virginia, won first money while C. W. Myers of the midwest was second.

In the Class A race, "Speed" Holman of St. Paul took first, in a J5 Laird. "Spced" was then chief pilot for Northwest Airlines. He was a wise pilot — all six feet, five inches of him. Eddie Balleau of Chicago came in second in another J5 Laird, with Charles "Pop" Dickinson as his passenger. "Pop" was an early-day aviation enthusiast and sponsor in the midwest. He was the grain broker in Chicago who financed many early-day flying ventures, including the first scheduled airline operating between Chicago and Minneapolis (initiated in 1926). This line was later purchased from him by a group of St. Paul and Minneapolis bankers.

"Pop" was a striking, elderly gentleman with glasses and a long, gray beard. With a helmet and goggles on, he really personified "Mr. Santa Claus" of early U. S. midwestern aviation, which he was. "Pop" had a truly infectious enthusiasm for flying. When he rode with Balleau in the New York-Spokane race he surely provided a picture as the airplane skidded up to fueling stops, looking out of the open cockpit, his beard streaming over his shoulder as if he was trying to see ahead around the next turn. These hedge-hopping open-cockpit airplanes were a sight, rolling into each checkpoint and (with no brakes) ground-looping to a stop for gas and weather information. Nick Mamer of Spokane placed third in this Class A race, flying an open-cockpit Buhl.

Other entries read like the "Who's Who in Aviation" at that time or even in later years, with R. Hudson of Marysville, Michigan; "Pop" Cleveland of Cleveland, Ohio; E. Hamilton Lee of Chicago; John Wood of Wausau, Wisconsin; Emil Burgin of Long Island; Frank Hawks of Montana and Houston, Texas; James Ray of Philadelphia; Tex Rankin of Portland, Oregon; J. C. O'Donnell of Whittier, California; L. T. Royal of Flint, Michigan; and Bob Fogg of Concord, New Hampshire. (Fogg and I were later to do formation desk flying, with desks side by side in the U.S.A.F. Hq. in World War II.)

In the race from California there were, finally, eight Class A entries. H. C. Lippiate came in first, and Lee Schoenhair was second. Lee, a World War I pilot, was flying a J5 Stearman in Butte when Charles Lindbergh had landed there earlier in the month. Lee, a California pilot, had the distinction in even earlier aviation days of owning the finest Liberty-powered DeHavilland ever built. I first knew Lee when he was flying out of San Diego, in 1924. He kept the D.H. at Rockwell Field at North Island, and his Liberty motor sparkled like a jewel. The fuselage was covered with plywood, painted a maroon color and finished like a piano. The name, "Pal of Mine" was painted in small, neat gold letters on the cowling. Lee had also flown an SE5 in Montana immediately after World War I on a victory loan air tour in 1919. This tour was participated in by a group of military airplanes com-

manded by then Major Carl Spatz, who later became a prominent World War II General.

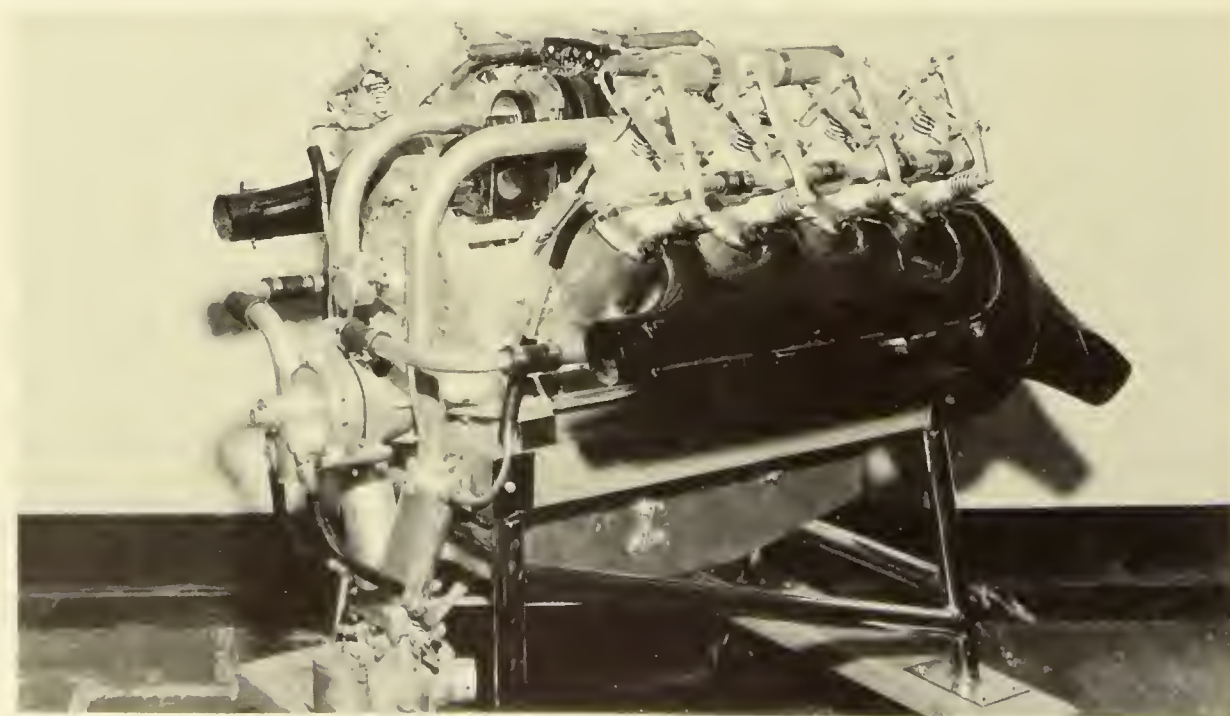
Scheduled stops on the New York-Spokane race were made in Montana at Glendive, Billings, Butte and Missoula. Non-scheduled stops were made at Miles City, Helena and Bozeman. Eddie Stinson got the farthest from New York on this non-stop race, when he landed at Missoula with a broken rocker arm.

California non-stop entries included D. C. Warren and Cecil Langsdon. Other well-known pilots in the Class A and B races including Jack Frye, Lee Willy and Vance Breese. Paul Richter sat out the Class B someplace up in North Dakota.

Aviation people from all parts of the nation poured into Spokane, where the September 1927 air show was such a grand success. To the surprise of everybody, the show made money (which was later put to good use by the air show committee financing the non-stop, coast to coast *Spokane Sun God* flight in 1929). The *Spokane Sun God* flight, an endurance flight to stimulate interest in a northern transcontinental airline from Seattle through Spokane to St. Paul, by way of Montana was a most worthy venture in advancing air-mindedness in this vast region.

In the pioneer 1927 Spokane Air Races the old OX5 motor used in the Class B airplanes appeared for the first time to be more dependable than the Wright Whirlwinds in the Class A aircraft. The Wright motor later became recognized as a very dependable power plant; however, in the Spokane races they were pushed past their limitations and the cowling of the air-cooled engines was a very critical factor at that time. The old OX5 just couldn't turn up fast enough to hurt itself. This was a good engine which had originally been built by Glenn Curtiss for a motorcycle in 1906 (at which time he attained a speed of 136 mph). This motorcycle speed record wasn't broken by any land vehicle until many years later.

You may see an OX5 motor in the permanent aviation exhibit in the State Historical Library in Helena, Montana.



*Curtiss OX5 engine in Montana Historical Society Museum, Helena, Montana.* Frank Wiley





*Curtiss Hawk single-seater fighter.*

Frank Wiley 'Snowbirds' at Miles City.

Frank Wiley



*Boeing fighters en route to Spokane. Note insignia.*

Frank Wiley



*Boeing P26.*

Frank Wiley

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# The Snowbirds

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The social highlight of the year 1927 at Miles City was a visit by Major Ralph Royce and the pilots of the first pursuit group from Selfridge Field. They were enroute from Mount Clements, Michigan, to Spokane, Washington. This early U.S. army air unit was on its way to attend the air show and the National Air Races of that year.

Appropriate "local color" entertainment was arranged by Buck Winter, airport commission chairman. This was directed by "Hell-roaring" Jones, a stockbuyer who specialized in the western motif. Appropriate "Cow Country" refreshments were imported from Canada via Louie Brown's underground warehouse at Jordan (because of the Volstead Act) and the entertainment was embellished by a large and gala banquet and dance at the famed Miles City Club.

The floor show at the Miles City Club included a cowboy orchestra, as well as a well-fertilized number in which "Hell-roaring" Jones rode his horse up the stairs to the second floor of the Club building, then dropped a rope over the shoulders of Major Royce, the unit commander of the visiting U.S. Airforce flight group.

Members of the group were initiated into the Miles City Chap Club, a ceremony which included a good larrup with a pair of heavy, leather chaps, while the recipient was forcibly reclining on his tummy over a bedroll provided for the occasion (an old cowcamp custom accepted by the fighter pilots, but not too well understood). There are generals in the Air Force today who well remember their initiation, as second lieutenants, into this exclusive Miles City and Montana fraternity back in those rip-roaring days of 1927.

This first pursuit group had been equipped with Curtiss single seater fighters, powered with D12 "Conqueror" engines. A winter flight from Selfridge Field to Spokane was also scheduled for the unit, with stops at the Montana cities of Miles City, Billings, Helena and Missoula. These aircraft would be equipped with skis, and these pursuit ships were accompanied by a maintenance crew traveling in a Ford Trimotor airplane.

The preheating of the then water-cooled motors in sub zero weather was an heroic operation. A big, steam tractor had to be driven up to the airport to furnish hot water for the radiators and to heat the oil in the motors. The corrugated aluminum sheeting with which the skis on the aircraft were shod, proved to be too soft in our icy conditions. Hence many of the rugged, little fighters had to be re-shod at Miles City with corrugated sheet-iron, normally used for roofing on barns and sheep sheds.

On this epic winter flight the weather at Miles City deteriorated rapidly, even as the first pursuit group became better acquainted with local conditions. It was four days before they could get out of town.



In the following years, improved techniques in winter flying were developed, and this air corps unit became better equipped, too, eventually flying Boeing fighters with air-cooled engines.

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## Ira Packard

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Ira Packard, while he lived in Scobey, Montana, in 1925 was employed by the Westland Oil Company as a bookkeeper. He was a veteran of World War I, and immediately after returning to this country had gained some experience as a newspaper reporter in New York City. He got into the newspaper business in an unusual manner. It happened that he was walking along a street in New York City at a time when a peddler's wagon full of explosives was blown up by an alleged band of anarehists, in the N. Y. stoek exchange area. Paekard, with a keen perception of the news value, got on a telephone line. He called the *New York Times*, giving them a graphie, firsthand description and running commentary on the activities following this explosion, in which several people were killed. He thus landed a job as a newspaper reporter. Later he came west to Scobey where an unele had some business interests.

Paekard was a good accountant. But above all he took a keen interest in the operations of the Ryan airplane used by the president and key per-



Emerson Hughes, Ira Packard and Frank Wiley at Miles City, 1927.

Frank Wiley

sonnel of the Westland Oil Company. I used to barnstorm this airplane to help offset the operating cost. When I did, Ira Packard would go along with me and sell tickets. When he left the Westland Oil Company in 1927, he went on with me to Miles City to work in the flying school and aircraft sales operation which I previously established there. I gave him flying instruction and with four hours of dual, he soloed himself. Following this he struck out alone, barnstorming with an OX5 Travel Air originally purchased by a car dealer in Glasgow.

Packard barnstormed with me during the summer of 1928. He continually amazed me with his ingenuity and fast thinking in landing his OX5 Travel Air in unusual places particularly when the motor had quit. I remember one landing at Jordan in which he had a motor failure while taking two passengers on a ride. Packard attempted to land in a field adjacent to a cone-shaped gumbo butte. He overshot the field. With the gumbo butte staring him in the face, he instinctively pulled up, landing on the steep slope of the butte. This inclined at such a steep angle that the airplane rolled backwards until the full length of the tail skid was driven into the ground. It took quite an assembly of people to carry the airplane down the side of the butte, following which Packard was kept busy for some time giving free rides for their help in retrieving his airplane.

On another occasion, when we were flying to Forsyth to haul passengers, Packard had another motor failure. He again overshot the field. The airplane glided across a deep coulee, landing at a site where there had previously been a round stock corral. The poles of the corral had been removed; however, the twisted cedar snubbing post in the center of the corral site was still in place. I landed in a nearby field and went over to help him out of his difficulty. It was quite impressive to note the tracks of an airplane near an old-time cowboy snubbing post. I paced off the distance from the wheel track to the post, and found that, in landing, his airplane wing had missed the post by only a margin of inches!

By the end of that summer Ira had become a pretty good pilot. When the automobile dealer for whom he flew moved to Fargo, North Dakota, Packard and his airplane went along. I used to get an occasional letter from him. He flew quite actively at barnstorming in Minnesota and North Dakota during the next two years. Later he located in Lincoln, Nebraska, where he became the first Director of Aeronautics of Nebraska, one of the first states in this country to establish a state aviation agency.

Packard, as director of aviation for the state of Nebraska, created an active state airport development program. He is credited with inventing the use of magnetic compass headings as the designating numbers of airport runways—a very material contribution to air navigation and airport traffic control!

Packard and I served in the same outfit during World War II, he as an accident investigation officer. After the war, he became associated with the aircraft division of the National Civil Defense organization with offices in Battle Creek, Michigan. It is my understanding that he may have later moved back to Nebraska.



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# John W. Schnitzler

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One of Montana's pioneer aviation sponsors and flying farmers (previously mentioned) was the late Senator John W. Schnitzler, of Froid. He was a capable and prominent banker in eastern Montana, heading important agricultural banks at Culbertson, Froid and Flaxville. Senator Schnitzler represented Roosevelt County in the legislature from 1924 to 1929. He was later state Republican National Committeeman; chairman of the Northwest Foundation, a farmers' organization; and a frequent advisor to President Herbert Hoover on agricultural matters at both national and international levels.<sup>(1)</sup>

I was fortunate in knowing this unusual man, who was an exceptional and dynamic leader in Montana's economy and industry. Likewise, through his interest in flying, he was of the firm belief that the airplane was the answer to the limited transportation of Montana during that era. I once flew Schnitzler and Dick Coughlin (my employer and president of the Westland Oil Company) from Froid to Regina, Saskatchewan, where we were honored guests of the Canadian Pacific Railroad at the opening of their new CPR Hotel at Regina in 1927. Upon returning from Regina, the Senator, affectionately known by his close associates as "Schnitz," asked me to put in an order for him for an airplane—such as the one he had just had a ride in, the Ryan M2 (owned and operated by the Westland Oil Company). Schnitzler then employed a local barnstormer from Froid, Titus Richards, to fly his first airplane, as well as several other aircraft which he later owned. Richards was a rugged character of the old barnstorming school, seat-of-the-pants type, who had no respect for the technique and technical aspects of the profession, but who had an inherent instinct that generally dictated the right move in any emergency.

Richards, though handicapped by being crosseyed, was an excellent pilot. I think he must have invented blind flying. In checking him out in Schnitzler's new Ryan, he really shook me up. When I turned around in the cockpit to look at him when he was landing, Richards always appeared to be looking over his shoulder at the tail of the airplane. Even so, he could land with precision and he could fly any type of airplane.<sup>(2)</sup>

I took delivery of the Ryan M2 monoplane for Schnitzler in San Diego, California on June 6, 1927, departing on the 7th for Los Angeles, and returning to San Diego on the 8th to have the tail skid reinforced, as it had broken on landing in Los Angeles. I then departed from San Diego again, flying north from Los Angeles on the 12th and again landing at Las Vegas, Nevada for gasoline.<sup>(2)</sup>

I took off from Las Vegas for Salt Lake. While crossing the Mormon Range at an altitude of approximately 12,000 feet, an oil let go, pumping all my oil overboard in a matter of minutes. Looking down, all I could see



*John Schnitzler, his daughter, Mrs. Helen Hornby, Mrs. Schnitzler, and pilot Titus Richards with Ryan M2 airplane, Froid, Montana, 1927.*

W. H. Hornby

was the dry desert mountains with deep canyons to the north. I noted that the railroad followed a canyon in that direction. I was sitting on a new Russell parachute in which I had a lot of confidence, and I had made several previous parachute jumps at a fair in Missoula in 1923, but I didn't like the looks of the dry, isolated mountains over which I then glided with my motor throttled back. We decided to give the canyon and railroad a look—then managed to glide down a side canyon, gradually turning into the main canyon. But even this was so crooked that the railroad had to run through an occasional tunnel.

Coming around a bend about 500 feet above the floor of the canyon, I spotted a prospector's shack and his long, narrow garden by a river. Stalling the Ryan, I dropped into the garden patch, glad to be down. I was immediately contacted by my host, who told me that I was in what was known as Rainbow Canyon, about 18 miles from a small camp called Caliente, Nevada.

We looked the engine over and found the cause of losing the oil—a broken copper oil line leading from the front of the crankcase to the oil gauge on the instrument panel. My prospector friend took me to town in his dented but dependable Model T with no top. I borrowed a flaring tool and a blowtorch at a garage, purchased five gallons of oil and some spare tubing, and we returned to his diggings where repairs were made. That evening when the weather cooled off, I jumped the Ryan out of the garden patch, having first unloaded everything including gasoline (except for 7 gallons in a header tank which was built in the leading edge of the wing). My friend, the prospector, having reaped a bonanza of about 50 gallons of gasoline, agreed to meet me at a dry lake a few miles east of Caliente, bringing my baggage as well as the tools that I had borrowed from the local garage.

I noted that I climbed to 4,000 feet just to get above the canyon walls. As I approached Caliente I could see that it just wasn't my day. There in front of me was a big, black thunderstorm, between me and the location of the dry lake I had been told about. With only a few minutes' fuel, I elected to land on a wagon road through the mesquite just out of Caliente. After two passes at the road, drifting off because of the crosswind and no forward



visibility in the airplane, I finally set the Ryan down in the brush. It bounced, tail up, sounding like all the apple boxes in Wenatchee being jumped on all at once. Then all was quiet.

I climbed out and started taking inventory. The result: a bent propeller, the first metal propeller I had ever had the opportunity to fly behind; and half the landing gear damaged beyond repair. On the plus side, there wasn't a single hole in the fabric of the wing or fuselage. Looking back along the path of the airplane through the mesquite, which was really high, it was unbelievable that the airplane had survived at all.

I will never forget the friendliness of the people of Caliente. The whole town turned out. Boys from the garage brought a truck and welding set. We disassembled the airplane, taking off the wing and temporarily repairing the damaged gear so that the plane could be towed. We then took everything to the railroad depot where the agent had a boxcar spotted. We loaded the Ryan for shipment that day, June 13, 1927, to Milford, Utah, where an emergency landing field used by Western Airlines on their Los Angeles-Salt Lake run, was located.<sup>(2)</sup>

I phoned Hawley Bowlus, factory superintendent of the Ryan Company. He and John Von Derlind sneaked a new propeller and hub, and a right landing gear out of the stockroom without Locke, the stockroom boss, knowing about it. They shipped me the parts, prepaid express, and charged them off to engineering, since I had found out for them that you just can't fasten a copper oil line rigid to a motor bed and expect it to last very long.

Departing from Milford on the 17th, I made it into Salt Lake and stayed overnight. I was forced down again between Pocatello and Duboise, Idaho, due to an air lock in the oil radiator. This time I learned that you have to let the air out of the oil radiator, otherwise expanding warm air will force the oil overboard via the breather on the crankcase. (Flying in those days was on-the-job training for the qualifications for an airplane and engine mechanic's license, and also required applied research in aircraft design.)

Landing west of Duboise in an open area, I dodged black lava rocks higher than the wing. If you have ever flown low over the Craters of the Moon country, you know what I mean. I got more oil from Duboise via a rancher and Model T, then made it into Dillon where I stayed overnight with Fred Woodside. Fred's partner in the Buick garage rode into Butte with me the next morning. At that time the Dillon airport was west of town. Fred Woodside was a friend of all pilots, saving many a barnstormer's life by feeding him when the pilot would otherwise have starved to death. Fred (as previously mentioned) first got the flying bug when Andy Andrews, a barnstorming pilot, had made passenger-carrying flights at Dillon, and when Vance Breese, later a west-coast pilot and aircraft designer, had made parachute jumps from Andrews' airplane.<sup>(2)</sup>

Still delivering Senator Schnitzler's Ryan from San Diego, I landed in Helena June 20, 1927, to pick up the Senator. He had me spend that day giving rides to his many friends. We left early the next morning for Scobey, flying via Great Falls. As we flew down the Missouri River through the

Gates of the Mountains, the Senator would look back at me and give a dubious nod to the canyon walls. (In those days the pilot rode behind the passengers in an open cockpit.)

When we landed at Malta for gas, Schnitzler mentioned that he had been a little worried when we flew through the canyon, wondering if the motor would keep going. Then he remembered that I sat on a parachute and would get down o.k., and that he had a quart of Scotch in his satchel on the seat beside him. He said that after a couple of strong swigs he knew he would get down alright, too.

In the winter of 1927-'28 I migrated south with the birds. I had just accepted a position as a test pilot for the Lockheed Company in Burbank, when a telegram from Senator Schnitzler advised that he would finance any aviation operation I might care to develop in Montana. In following discussions, Schnitzler stated that he was particularly interested in the development of an airline between Regina, Saskatchewan and Cheyenne, Wyoming, to connect with the scheduled air mail which operated along the transcontinental route to the west coast from Chicago through Cheyenne. Schnitzler — far ahead of his time — believed that an airline operation between Regina and Denver would be stimulating to the economy of both Saskatchewan and Montana.

Accepting Schnitzler's offer, I returned to Montana to sign a contract for the distribution of the Travel Air airplane, then built in Wichita, Kansas. I established my flight operation in Miles City including sales, service and instruction, under the names of Midcontinent Aircraft Company and the Yellowstone Flying School.

Senator Schnitzler put Froid on the aviation map, not only in Montana but at the national level, when he arranged for the Ford Reliability Tour to stop in Froid, en route from Great Falls to Minot, North Dakota. This summer day in 1928 was a red-letter event for Montana aviation, long remembered by the Ford Reliability Tour people for the hospitality offered them by the Montana host cities, and long remembered by the people of the Treasure State for the friendliness and interest shown by Ford Tour participants in demonstrating the practical utility of the airplane for transportation.

Nationally famous pilots who visited Froid included Frank Hawks of the Texaco Oil Company, flying a Ford Trimotor. He held several transcontinental and speed records, and had previously lived in Lewistown, where he worked in a bank. Hawks flew many famous airplanes, including the "Good to the Last Drop" Maxwell House Coffee Ryan Broughman (which actually was the first copy of Lindbergh's "Spirit of St. Louis") built by Mahoney Ryan aircraft company of San Diego. Frank always had a warm interest in Montana aviation. He always used to ask me about flying developments in our state whenever I ran into him in other parts of the country.

Other famous pilots on that tour included Billy Brock, Lee Schoenhair, Eddy Stinson, and Art Davis. This fourth Ford Reliability Tour was scheduled to pass through Montana in July. Plans for the Tour were developed by the Detroit, Michigan Board of Commerce aviation committee, headed by the chief engineer for the Ford Motor company, William B. Mayo, and





*Frank Hawks with the first Ryan Brougham airplane built.*

Thomas P. Mathews



*Texaco Oil Company Northrup airplane, flown by Frank Hawks.*

Frank Wiley

supported by Henry and Edsel Ford.

The Pathfinder plane used by Ford was a giant Fokker ten-passenger, two-pilot cabin plane, loaned by the U. S. Army, with a 65-foot wingspread and a body 48 feet in length. This (in that day) huge airplane was a monoplane, powered by three 225 hp. motors. A newspaper account states that "the center propeller had three points of steel; the side propellers, having two points each, were made of mahogany and with full gas tanks the ship weighed three tons."<sup>(3)</sup>

The Tour stopped at Missoula, Great Falls, and Froid. The route included 6,300 miles of flying over a period of three weeks.<sup>(4)</sup> It was a significant event for Montana aviation.

Early in the summer of 1928 I flew to Froid from Miles City to close the order for a new, six-passenger Travel Air airplane for Senator Schnitzler.

Arriving late in the evening, I checked in at the hotel and went to bed, planning on contacting Schnitzler the next morning at his bank office.

Something awakened me in the night. Looking out the window I saw the reflection of flames on the adjoining buildings. I got up, quickly dressed, and rushed out into the street to see two buildings burning on the other side in the same block as the bank. My first thought was, "There goes my airplane sale to the Senator." Then, recovering, I rushed over to his house a few blocks away and woke the Senator up. He directed me to the home of his cashier, Tom Ryerson.

We went immediately to the bank and the scene of the fire, where it was very evident that, with the high wind, the whole block would burn including the bank. Schnitzler remarked that the vaults contained irreplaceable negotiable paper on loans from all over eastern Montana. A large crowd had assembled. I told Schnitzler that if he would get me eight good men I could clean the bank out before it burned.

He called eight young fellows out of the crowd and we went to work with two teams of four men each. First breaking out a plate glass window, we removed all furniture and fixtures through the window to a safe location across the street. We then emptied the vault with no regard for files or classification of paper, putting everything in a pile along with the furniture but covering it all with rugs from the office.

Farmers in the area filled their threshing machine water tanks and drove them to town. There we set up bucket brigades to the top of the bank. A grocery store, next door, was burning. The canned goods sounded like the Fourth of July, with an occasional roar as a barrel of something exploded. It rained empty cans on the roof of the solid brick bank, and I remember thinking that those empty cans, split at the seams, would make excellent soap dishes. There were enough of them to equip every bunk house in Montana. (Very few people now remember the ingenious tin-can soap dishes that went along with the usual basin and roller towel in every bunk house years ago.)

We saved the bank, and after sleeping the clock around, I checked in with Schnitzler to see if he still thought he needed an airplane. He assured me that he did. He had only one complaint. I had thrown his pet chair, made to order for him, through the plate glass window, demolishing both. There were plenty of other chairs I could have picked, he pointed out. Schnitzler was a man of small stature. His swivel chair especially had been made to fit his physique. There was a twinkle in his eye, however, as he told me how appreciative he was of the escape he had had from very heavy financial loss.

I was also thankful of my own good fortune when I went out to untie my airplane to leave. Several holes the size of a quarter had burned through the fabric in the top wing. These were caused from the embers which, the night before, had been carried by the wind out to where the airplane was tied down.

An order for a new, six-passenger Travel Air was placed with Walter Beech for Senator Schnitzler, who in the interim had taken flight training in



San Diego and Los Angeles — and had also purchased a two-passenger Monocoupe, which he flew himself.

Schnitzler kept us in continual shock by his flying. I remember when I next stopped at Froid, and “Schnitz” related an unusual incident while flying out to one of his many wheat ranches. Schnitzler said he was looking over some grain fields. Suddenly the fields started rotating and spinning, and he couldn’t make out the details on the ground. He said he let go of everything and hung on. When the fields stopped spinning, he again took hold of the controls and went on his way. He admitted that when he got straightened out he was pretty low for safe flying.

I tried to explain to him that the Lord had perhaps intervened and spared his life as a reward for some past good deeds, but that He might not happen to notice Schnitzler if he should get into the same predicament again. The situation he had experienced was commonly known as a tailspin, caused from lack of air speed and crossed controls. It didn’t impress him a bit. He continued to use his Monocoupe like a pickup truck to go anywhere, any time. At that time Schnitzler was considered to be the biggest individual wheat farmer in the United States, his acreage being exceeded only by a few large corporations with several stockholders.<sup>(5)</sup> Senator Schnitzler made a trip east. While in New York, he wired me to cancel his order for the six-passenger Travel Air. He had just booked passage on the Graff Zeppelin to Germany. One of my prize possessions is a postcard Schnitzler sent me from Germany, describing another flight he had, in the Dornier DOX, a giant, multi-engine flying boat which had just been test flown in Germany.<sup>(6)</sup>

Senator Schnitzler had a wide knowledge of world trade and the manipulation of stocks, both by the Chicago Board of Trade and by the New York Stock Exchange. When unfavorable marketing conditions for wheat prevailed in this country, he would charter his own boats and export his wheat to foreign purchasers. He knew wheat through the whole cycle from planting to actual consumption, and exporting was the motivation for the trip he made to Europe.

The Senator returned from Europe more enthusiastic than ever about flying and the possibilities of an airline. He requested that we immediately purchase for him, a small, four-passenger cabin Travel Air which would very shortly be put on the market. To my relief, he also requested that I hire a good pilot for him.

There was then available a tall, slow-talking Texan living in Billings. He had recently learned to fly but he was principally engaged in playing professional baseball. This was Earl Hale, who had first come to Montana in the front rank of a unit in the walking army which had been transferred to Fort Missoula. Earl Hale (as told previously) had become the proud possessor of a commercial license, the training for which he acquired by selling tickets, grinding valves, and other non-glamorous hard work involved in servicing and operating airplanes.

In those days, it took a person with a strong back to pick up the tail end of an airplane and turn it around. The tail wheel had not yet been thought of. This picking-up exercise was certainly excellent physical educa-

tion and stimulating to the appetite. The calisthenics frequently varied to include starting the motor by pulling the propeller through. This was a bit more artistic than picking the tail up. It had to be done exactly right or the propeller-twister might get wound up in the propeller and lose a hand. Several prospective pilots terminated their existence on this earth by accidents involving poor propeller-twisting technique, or confusion in the command of "Contact!" to designate that the ignition switch should be turned on. There are still old-time pilots who remember the important meaning of the word, "Off!", which could be a life or death matter!

Hale worked for Grady Woodard and Vern Lucas, a Billings ace who taught him to fly. Hale had a very serious view of flying. He knew what he wanted to do, and how to do it. He snapped up the job with no hesitation, and he and Schnitzler hit it off right away. Hale took delivery of the new, four-passenger cabin Travel Air. This airplane, the first production model of this type built, had been exhibited at the Cleveland Air Show in the fall of 1929. Schnitzler was like a boy with a new red wagon. He flew at any and every provocation or excuse for going somewhere.

The writer was wintering in California when Senator Schnitzler came down to Los Angeles, becoming interested in buying stock in an airline company operating between San Francisco and San Diego. This company, known as Maddux Airlines, operated Wasp-powered Ford Trimotors. The airline was well run and efficiently operated; but as I pointed out to Schnitzler, it was not subsidized by air mail. Airlines, like any other form of transportation furnishing a usable service to the public, cannot survive economically unless they are directly or indirectly subsidized with public moneys.

Senator Schnitzler was one of the first of very few people in this region who were aware of the trade potential with the two provincial capitals to the north of our border. Regina, Saskatchewan, and Edmonton, Alberta, each included populations several times greater than the population of any of our Montana cities, and these two Canadian cities are closer to Montana than any other large city except Spokane. The same factors prevail today.



*The first four-passenger Travel Air built, and flown by Earl Hale for Senator Schnitzler.*  
Marge Logan



Schnitzler was also interested in the idea of an airline in Montana. So I agreed to be associated with such a venture if a mail contract could be negotiated. He started the groundwork for an airline service in Montana through the then excellent political connections he enjoyed, both at state and national levels.

In the meantime, his banking business instinct would not accept the inefficiency of paying a pilot through the winter months. So he laid Earl Hale off; while he sojourned in milder climates. Several airlines at this time had been started, so Hale found work with Inland Airlines operating between Billings and Cheyenne. National Parks Airlines had also started operating between Great Falls and Salt Lake, and Mamer Airlines were operating through Missoula, Butte, Helena, Billings and Miles City. I went to work for Mamer. This left Schnitzler shorthanded in his need for a pilot.

Mamer Airlines discontinued their operation through Montana in the fall of 1930. Being one of several small, non-subsidized airlines, they were blocked in their hope of acquiring valuable mail contracts through lobbying in Washington by Northwest Airlines and United Airlines. These two seasoned operators, knowing the ropes, were able to discourage prospective competitors, sometimes by devious means. The resulting Congressional investigation known as "the air mail scandal," caused all air mail contracts to be cancelled. One top official of Northwest Airlines went to Leavenworth, for contempt of Congress; and the army disastrously lost 18 pilots that winter in their attempt to fly the mail for the government. It was a tragic affair and a hard set-back to flying.

Schnitzler in the meantime still had a desire to initiate a north-south airline operation. I went to Minneapolis to meet with him, along with a friend and business acquaintance of the Senator's named Fritz Conrad. We were to discuss proposed aviation operations in Montana through Northwest Airlines. Schnitzler phoned me in Minneapolis, advising that his pilot was flying his airplane from Froid to Havre for relicensing. They would then meet me in Minneapolis.

Senator Schnitzler was killed in the crash of his airplane on the way to Havre. The young pilot flying the airplane mistook the Turner Branch for the main line of the Great Northern Railway. Following this branch line, he flew into a hill in a sudden late spring snowstorm. With this tragic incident I lost a close, personal friend and Montana lost a prominent and valued leader.

I have many times speculated on what the airline service pattern of Montana would have been, had this man, with his fantastic capability and vision, been able to continue plans for a north-south airline. We may yet see service from Regina to Cheyenne and Denver through Montana cities. At that time, as well as now, the basic factor dictating routes is service between population centers, rather than a convenient service to smaller cities which happen to be along the way. Senator Schnitzler had great vision. He would have brought about some of his long-range hopes, had he lived longer.

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# Cecil Shupe

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Cecil Shupe, raised on a farm near Stanley, North Dakota, had an unusual knack for mechanics. As a youngster he worked in a garage in Stanley. Shupe promoted himself into a job with Earl Vance in 1924. Vance, recognizing Shupe's ability, was appreciative of his mechanical talent. Shupe was a real perfectionist who kept Vance's Hisso Standard in highly dependable running condition. "Cece" then traveled from town to town with Vance on barnstorming operations. He went with him to Florida in the winter of 1925, at which time Vance had decided to participate in the bonanza of the Florida real estate boom.<sup>(1)</sup>

There was another boom in the vicinity of a World War I army air field located at Americus, Georgia. This took place when Vance had a motor failure and wrecked his airplane — not an unusual experience of barnstorming pilots of that time. Shupe continued on to Florida with Earl and Mrs. Vance, working with Earl in the maintenance of a new OX5 Waco 9 that Vance purchased from Doug Davis; enabling him to continue flying in the Orlando and Lakeland vicinity.

Vance contacted me at Santa Monica, where I was working for Douglas. I accepted his offer to fly the Hisso Standard, after rebuilding it (with Vance financing the project from Florida barnstorming earnings). Cece returned from Florida, and we set some kind of record for that time, completely rebuilding the airplane with a new motor mount and landing gear, as well as a complete fabric recovering job. We also overhauled the Hisso engine and completed the whole rebuilding job in only seven weeks!

The field at Americus was an airplane mechanic's dream, with the largest collection of World War I airplane parts that I have ever seen. This army airport during World War I had been an experimental field, used for the evaluation of aircraft produced by our allies. It was a turf field, one mile square, with twelve wooden hangars, all of which were crammed full of airplane parts and supplies. These hangars and contents were owned by a company known as Solomon and Wyche. Barnstormers throughout the country were well acquainted with Wyche, who ran a keen business of selling parts and supplies as well as the selling of rebuilt Curtiss Jennys. Wyche had a crew of men who would completely rebuild a Jenny and deliver it to a customer on the field for only \$1,800. As the only pilot on the field that winter, I used to flight-test these rebuilt airplanes for Wyche when completed and made available for sale.

The surplus airplane parts stored in the hangars included parts for British DH4 aircraft, Bristol fighters, and Italian Caproni triplanes. These triplanes were huge bombers and were used for night bombing missions by the makers. Other aircraft included SE5's, Thomas Morse Scouts, Spads, Nieuports, and many other parts of aircraft which were unidentified. The





*Vance and Turner in Waco 9.*

Frank Wiley

supplies included cable, fabric, and mahogany plywood, with a miscellaneous assortment of wheels, tires and hardware.

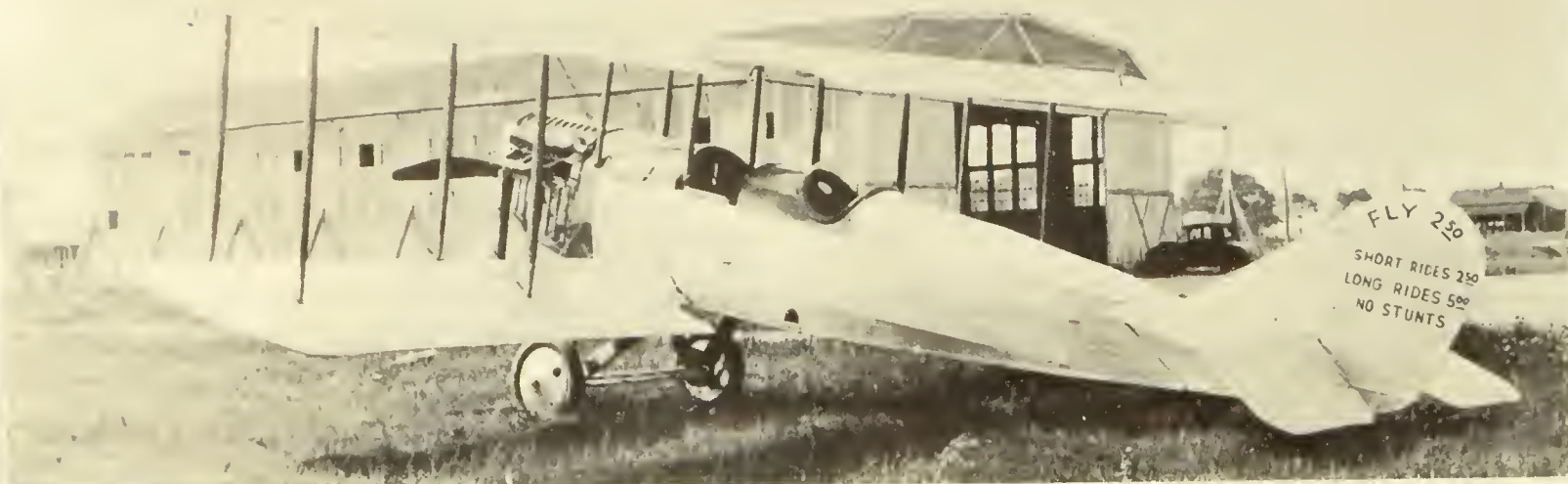
In rebuilding the Standard, Shupe and I had an unlimited selection of material. We wound up with a DeHaviland landing gear and cowling, an SE5 radiator, and a fuselage reinforced and embellished with mahogany plywood. (It is probable that this reinforced fuselage contributed to my safety and the safety of two lady passengers when I later cracked the airplane up in Montana, crashlanding it in some cottonwood trees without injury to either myself or my passengers.)

I remember that when we departed from Americus with our barnstorming team, Wyche told Shupe and me that he expected we would crack this airplane up. When we did, he would furnish us funds for transportation back to Americus if we would go to work for him. We both considered this a high compliment to our mechanical skill.

Vance and his wife came to Americus in April of 1926 and we then started on a barnstorming tour, working toward Montana with an imposing array of equipment including the Waco 9, the Hisso Standard, and a Chrysler coupe. Personnel in this entourage included Earl Vance, his wife Esther, Cecil Shupe as maintenance man, Dean Turner, an aerial photographer of proven ability, and myself. We barnstormed towns all through the south, moving north to Washington, Indiana; then in turn, hauling passengers in Louisville, Kentucky, a few days before the Derby; and then from the infield of the Indianapolis racetrack shortly before the annual automobile speed event.

Cecil drove the car on this expedition with all of our precious spare parts. He occasionally was given additional overtime jobs, one of which included a complete major of the Hispano Suiza motor in the Standard at South Bend, Indiana. This time we modified the engine from an "A" to a "B" model, with new rods, crankshaft, and pistons. (Yes, we had to ream out the crankcase for the marine-type rods.)





*Hispano Suiza Standard airplane at Americus, Georgia.*

Frank Wiley



*Esther Vance christening rebuilt Standard, Americus, Georgia.*

Frank Wiley



*'Hisso' Standard wrecked at Miles City.*

Frank Wiley



We continued our barnstorming Odyssey west through Madison, Wisconsin; Minneapolis; and on to Montana. There Shupe spent the summer working out of Sidney with Vance, barnstorming with the Waco 9. As mentioned earlier, there the Hiss Standard suddenly expired in a bunch of trees along the Yellowstone River at Miles City with a motor failure, and following this I accepted the position with the Westland Oil Company of Scobey. Dick Coughlin, president of Westland, was establishing an air transportation department to more speedily facilitate the travel of key personnel throughout the expanding area which they served in Montana, Saskatchewan and North Dakota.

Shupe came to work for Westland Oil Company shortly after I did. That was the winter I went to San Diego to supervise construction and take delivery of the Ryan M1 airplane. Cecil had assimilated a sound, basic experience in aviation, well learned during the barnstorming operations. He maintained this Ryan in tip-top shape for the Westland Oil Company; and as a fringe benefit, I taught him to fly on this plane. He then took on the job of company pilot and flew for them when their headquarters was moved to Minot, North Dakota. Here Cece branched out into commercial aviation, organizing an early airline operation with a schedule from Minot to Bismarck. The impetus in flying following Lindbergh's flight was now general to development throughout the country. Minot, being no exception, wound up with two competing airlines operating between Minot and Bismarck, one headed up by Shupe — flying a Ryan Brougham — and the other run by Tom Strickler, who flew a J5 Lockheed.

Cece did quite well in his commercial operations, which included both charter service and student instruction. I shall relate one experience he told me: A Waco F open-cockpit biplane suddenly became separated from the engine and motor mount, with the motor and propeller taking off into space, leaving the airplane without power about 2,000 feet in the air. With commendable presence of mind, Shupe had his passengers move forward in the front cockpit. Then grabbing suitcases from the baggage compartment behind the rear cockpit, he transferred his load ahead as much as possible, thereby being able to get his center of gravity ahead enough to control the airplane in a successful landing in a cow pasture!

Another flying incident by which I remember this pioneer pilot was a barnstorming operation at Terry, when our barnstorming ace, Vern Lucas, taxied into the Westland Oil Company Ryan, chewing the Ryan's wing off to the fuselage. Shupe rebuilt this airplane for the second time at Minot, lengthening the wing by two rib stations on each end and closing in the cockpit, making the M2 a cabin airplane, early for its time.

Cecil's mechanical ability was well known throughout the Dakotas. In the early 'thirties, Shupe accepted a position offered as head of the Vocational Aviation Trades School at South Dakota State College in Brookings. Following his trade school activities, he built up a successful general aviation business at Sioux Falls, which he sold to a later-South Dakota governor, Joe Foss, when Foss returned as a flying ace from World War II. Shupe then moved to the state of Washington, where he now operates an airplane

repair shop at the Renton airport, out of Seattle.

Cece still flies. He is recognized in his area as one of the best authorities on the maintenance and repair of light aircraft. This man, with forty years in the flying business and a colorful background of aviation experience, can look back on a very successful and interesting flying career, which contributed much to the future of the industry.



*Westland Oil Company Ryan M2 airplane.*

Frank Wiley



*Westland Oil Company Ryan M2; Schnitzler's Ryan M2; and Vance's Stinson Detroiter. Scobey, Montana, 1927.*

Cecil Shupe





*Lindbergh's transatlantic Ryan at Helena, 1927.*

Les Jorud

# *Lindbergh and The State Air Meet*

HELENA, 1927

It is probable that the year 1927 included more spectacular flying activities than any previous year in the aviation history of our country and our state. Worldwide flying activities in one day alone, September 5, included the takeoff from Caribou, Maine, of the monoplane, "Sir John Carling", on the third attempt to cross the Atlantic from west to east. Billy Brock, accompanied by Schlee, took off from Allahabad, India, in the "Pride of Detroit", and arrived in Karachi on a round-the-world flight. The monoplane, "Old Glory," took off from Old Orchard, Maine, on a west to east flight across the Atlantic for Rome. Another airplane, at the same point, called the "Windsor Monoplane" was being readied for a transatlantic flight to Windsor, England. At Mitchell Field, New York, the French pilot, Foncks, was then testing a biplane preparing for a transatlantic flight. At Corruna, Spain, F. T. Courtney was resting before hopping off across the Atlantic in an east-west flight from Plymouth, England to New York.

In Dublin, Ireland, the Irish Free State airplane awaited favorable weather conditions before a takeoff with Philadelphia, Pennsylvania, as a destination. In London, Charles Levine announced plans for a takeoff for a return trip to the United States across the Atlantic. And on this same date, Charles Lindbergh was scheduled to arrive in Butte, Montana, on a national tour sponsored by the Guggenheim Foundation!<sup>(1)</sup> It was an epic period.

This extensive air activity may be attributed largely to the increased capability of the airplane; but primarily some effect was due to the increased

dependability and efficiency of the new Wright aircraft engines with their radial, air-cooled design. A common remark at this time was that you "could fly a barn door across the Atlantic if you only had a Wright engine."

The tour of North America by Charles A. Lindbergh did much to stimulate public interest. Montana, being no exception, went all out to prepare for this visit to his former stomping grounds.

We in Montana laid claim to "Lindy" because he had spent the summer of 1922 in Billings as a member of a barnstorming crew. It was at this time that Lindbergh worked as a mechanic for the Westover garage and as a member of the barnstorming team which operated aircraft owned by Bob Westover. Charlie Lindbergh, in barnstorming Montana communities, also did parachute jumping and wing walking. When not in the air, he was given the many chores assigned to the low man on the totem pole of a barnstorming crew.

On this 1927 national tour, Lindbergh was scheduled to make two stops in Montana, at Butte and Helena, arriving in the state from Boise, Idaho, and departing from Montana for Spokane.

John D. Ryan, a former aviation administrator for the Federal government in World War I and a prominent official of the Anaconda Copper Mining Company in Butte, arranged for Lindbergh to take a break in his itinerary. They wanted him to spend a week, in seclusion, in a remote area in Montana as a guest of the state and a group of Butte businessmen. This was in thoughtful recognition of the fatiguing schedule being followed. Lindbergh, together with his tour manager, gratefully accepted the invitation to visit the wilderness lake which since then bears his name.

The program plans for Lindbergh's scheduled visit to Montana involved a problem of limiting the items on the agenda. Everyone wanted in the act, and everyone in the state planned on seeing and meeting Charlie Lindbergh, either in Butte or in Helena. Butte staged a gala banquet at the Finlen Hotel, with multiple courses such as are seldom encountered at even a formal banquet.

The Helena program included the first state air meet with acrobatic flying, parachute jumping and airplane races, in two classes each day, with prizes for the winners and for second place. This air meet was part of the state fair program and the dominating theme of that traditional annual event.

Staunch aviation promoter Bill Ferguson, was then secretary of the Helena Chamber of Commerce. Bill did his usual superb job of setting up the program for welcoming Charlie Lindbergh, and for the state fair air meet, as well. Bill appointed an air race committee to plan the air show and to direct the elaborate program. This committee established a schedule of events and a flying program which would be creditable to any air program committee of the 1960's. It not only included instructions and rules for race procedures, but also regulations for air traffic control. For the first time in Montana, an airport approach and departure pattern, with areas and altitudes, was also included.

The air race committee were all World War I veterans. They included





*Drawing of Charles Lindbergh.*

Thomas P. Mathews



*Charles Lindbergh before his transatlantic flight, San Diego, California.*

Thomas P. Mathews



*"Spirit of St. Louis" at Helena, 1927.*

Mrs. Ed Follensby





*Helena crowd at arrival of Lindbergh, 1927.*

Montana Aeronautics Commission

Jack Milburn of Craig; Ben Harwood of Billings; Walter Beck of Missoula; Loy Molumby of Great Falls; and Bill Lowry of Whitehall. The published rules for the air show schedule for September 6, highlighted by Lindbergh's arrival at 2:00 p.m., were as follows:<sup>(2)</sup>

1. Landing: All aircraft will complete a circle of the race track at the fairgrounds before landing.
2. Takeoff: No turns will be commenced until the edge of the field has been reached.
3. All turns on takeoff will be away from the grandstand.
4. All passenger flights will be from the municipal golf course.
5. No plane will take off until given a starting signal by the control timer with the starting flag. This applies to all passenger flights, contests and planes leaving the fairgrounds field for other destinations.
6. All pilots will synchronize their watches with the time given them by the chief timer [Lowry] not later than 2:00 p.m. each day.
7. All contestants must be in the fairgrounds field before 2:00 p.m. each day. During contests and stunts, all flying will cease at the fairgrounds field at the hours listed below:

Class A Race — 2:15 p.m.

Parachute Jumps — 2:50 p.m.

Class B Races — 3:55 p.m.

Stunts — 4:25 p.m.

Class A entrants will draw for places at 2:00 p.m.

Each race will be three laps around a five-mile course designated by a painted bullseye on each turn. The direction around the course will be designated each day. In making turns, the 'planes will keep on the outside of the marker. The finish of each race will be over a white cloth strip on the fairgrounds field at right angles to the grandstand. Lapping will be above or outside of overtaken plane.<sup>(1)</sup>

The airport used for this great show was the old golf course of Helena, which at that time was used extensively by the members of the historic, old





*Schnitzler Ryan M2 at Helena.*

Montana Aeronautics Commission

Montana Club. It is now a municipal golf course, located just north of Carroll College. The Montana Club was further imposed upon to furnish sleeping accommodations to the pilots and crews of the visiting aircraft. Ed Follensby, local Helena pilot, had a Jenny and a one-airplane hangar on the golf course, which gave the field the official status of an airport.

It was noted by the writer in using this golf course as an airport that at that time there were many golfers who were not too airminded, yet who were rightly conscious of an airplane competing with them for use of the fairways and even the greens. I remember distinctly one irate golfer, who very capably defended himself by throwing an iron at my airplane as I buzzed him to get him off the fairway so I could land.

The races started from the infield at the fairgrounds with three laps of a five-mile, triangular course, starting and finishing in front of the grandstand. Sixteen aircraft had assembled at Helena for this first Montana air meet.

Visiting pilots included Penn Stohr and K. Paul of Plains, Montana, flying an OX5 Swallow; Bill Hackbarth of Idaho Falls, Idaho, flying a Hisso Standard; William Wardwell of Wyoming Airways, Casper, flying an OX5 Eagle Rock; V. R. Lucas and J. F. Clifford of Great Falls, flying an OX5 Swallow; Arthur W. Stephenson of Dillon, flying an OX5 Waco 10; Martin Zolman and Clarence Urie of Livingston, flying a Salmson Jenny; Fred Woodside and Emerson Hughes of Dillon, flying an OX5 Waco 10; Senator Schnitzler and Titus Richards of Froid, flying a Hisso Ryan M2; R. J. Coughlin and myself, Scobey, flying a Hisso Ryan M2; Ed Follensby of Helena, flying an OX5 Jenny; Phil Love and crew, (department of commerce), Washington, D.C., flying a J5 Fairchild; Charles Lindbergh, Minnesota, flying a J5 Ryan, the "Spirit of St. Louis"; and T. J. White of the Navy, flying a Vought J5.<sup>(1)</sup>

Charles Lindbergh and Phil Love, accompanied by a mechanic from the Wright factory as well as a publicity director, arrived at 2:10 p.m. on September 6, landing on the golf course. They were greeted by a crowd of over 10,000 Montanans. The "Spirit of St. Louis," on schedule, landed first

## Colonel Lindbergh

*Complimentary Dinner by the  
Citizens of Montana to  
Colonel Charles A. Lindbergh  
on the occasion of his visit to the  
capital of the Treasure State  
September the Sixth, Nineteen  
Hundred and Twenty-Seven*



THE young man who is our guest today comes riding the wave of such a tide of popularity as very few men in all the world's history have known. He is submerged in a limitless sea of adulation. And he keeps his head. He is not spoiled by it. That fact, to some minds, will appeal as a greater triumph, a finer achievement, than the deed which made him one of the earth's immortals.

WE may be glad that our hero is so fine a hero. The shrine at which the American people worship in this instance is pure and clean and beautiful in its extreme simplicity. There is no shoddy saint, no merely lucky adventurer within. There is a simple, modest, brave and manly young man, such a youth as is the realization of the fondest dream of every mother's heart.

OTHER men, unworthy men, might do what Lindbergh did, but it takes a Lindbergh to be what he is today. He is the product of American ideas of liberty, independence, initiative and free opportunity. The same traditions and environment that helped fashion him are at work everywhere about us, making other young men to take charge of America's destiny.

AS Lindbergh goes about the country from one city to another, his service is not to aviation alone. He is feeding the instinctive hunger of the human heart for that which is good and true and genuine. He is lifting our weary eyes to the stars. He is inspiring us to fresh hope and courage, giving us new confidence in ourselves.

WE welcome this tired, but indomitable young man today and speed him with grateful and prayerful hearts on his great and glorious mission.

### Speakers

JOHN E. ERICKSON, Governor of Montana.  
COLONEL CHARLES A. LINDBERGH

### Reception Committee Representatives

#### For Montana

JOHN E. ERICKSON, Governor of Montana  
Chairman State Committee

#### For Lewis and Clark County

THOMAS COONEY,  
THOMAS SILLERS,  
HARRY PICKETT,  
County Commissioners

#### For the City of Helena

PERCY A. WITMER, Mayor of Helena

### Arrangement Committee

S. V. STEWART	BRENT N. RICKARD
T. A. MARLOW	W. A. CAMPBELL
R. O. KAUFMAN	A. T. SCHULTZ
A. M. HOLTER	E. W. BROWN
C. H. BRAY	E. J. MURPHY
M. S. GUNN	M. V. WILSON
J. M. POWER	PETER HILGER

### Menu

#### CRAB COCKTAIL

CHILLED RADISHES      OLIVES      SMALL GHERKINS

#### COLD ROAST CHICKEN

CELERY DRESSING      CURRANT JELLY

#### CHIPPED POTATOES

#### STUFFED TOMATOES EN SURPRISE

CHOCOLATE EUCLAIRE      FRENCH APPLE ROLL

#### COFFEE

#### MINTS

CIGARS      CIGARETTES

Lindbergh banquet menu and program.

Thomas P. Mathews



and taxied to an enclosure for the airplane prepared ahead of time. Lindbergh was immediately taken to the fairgrounds. There he addressed the crowd, and then went promptly to the Placer Hotel where a formal banquet was scheduled for him and his party, together with state dignitaries.

The theme of his talk at the fairgrounds was the future of aviation and the recognition by young people of their need for schooling if they intended to participate in this new travel concept of the air. How right he was, and the good people of Montana did take heed of his comments!

The visit of Charles Lindbergh to Montana, to Helena, and to the state fair, was the most important single event in the fifty-year history of the Montana state fair. The visit of this air prophet to Montana did not detract from, nor overshadow, the interest of the people in the flying events of the air meet. Rather, his visit stimulated their interest in the show to a very appreciative audience. This, in turn, made the air meet most enjoyable



*Capt. William Ferguson, Montana National Guard, and Charles Lindbergh.* Blanche Ferguson

to those pilots participating; profitable, too, to those pilots carrying passengers on sightseeing trips!

In the Class A races, Titus Richards flying Senator Schnitzler's Ryan, and myself, flying the Westland Oil Company's Ryan, had everything our own way. There were no other aircraft with comparable performance, competing. Our closest competitor was Bill Hackbarth in his Hiss Standard. We did our best to please the crowd with neck and neck turns around the pylons and a nose to nose finish each day. The Class B races proved a real dogfight and the crowd enjoyed them tremendously. As always, the parachute jumps all had suspense appeal until the 'chute opened — (will it or won't it)? There wasn't a pilot at that air meet who didn't feel he had a square deal and who didn't enjoy and long remember the hospitality of the good people of Helena.

They put us up in rows of cots, giving us one floor of the Montana Club where we all slept in the big banquet room, with crystal chandeliers and pull chains to turn the lights on. With accompanying ground crews, there must have been about forty of us sleeping together in this bull pen. We turned in at night, dog tired from long days of dust and flying; all except one parachute jumper, John Lockwood of Missoula. John was a big, lanky boy, who went out each night to celebrate his survival of the day just past. He would come in, precariously and hilariously drunk; then jump from one cot to the next at about 2:00 a.m., yanking on the light chains as he jumped, until he really woke everyone up. John had a ditty he was fond of reciting at the top of his voice, followed by the Missouri rebel yell; "WILD HORSE MEAT! MAKES THE DEAF HEAR, THE DUMB TALK, THE BLIND SEE AND THE DEAD WALK! YIPPEE!"

That was a greeting used for some years thereafter by pilots who had attended the Helena air meet. The usual procedure was to spot an airplane of one of these pilots as it sat on the field near some town, then glide down over them and throttle back the motor, giving them a greeting of "WILD HORSE MEAT!" In those days when there weren't too many airplanes in Montana, one usually recognized a pilot by spotting his airplane as you passed some field where he had landed.

An interesting incident of the show developed out of an argument with Verne Lucas as to the merits of our respective airplanes. The same variation of opinion prevails today. Lucas maintained that he could land shorter with his OX5 Swallow than I could with the Hiss Ryan M2. We agreed to settle this question by each landing as short as possible, and with the flip of a coin it was my lot to try first.

I flew around the field and made a power approach with a stall landing and in a nose high slip. We measured the distance from where the tailskid marks started to the tailskid when the airplane stopped, and in the three point landing I made, this distance was pretty short. We had several spectators, and Lucas asked Jack Milburn to go along with him while he demonstrated the landing characteristics of his Swallow. Lucas stalled out at about ten feet in the air, and when he landed the wheels came right up through the lower wings. The airplane skidded about 100 feet and there



Vern and Jack sat, flat on the ground. Lucas didn't appear very happy when I walked over through the cloud of dust and told him that he was right — he could land shorter. The strap on Jack's helmet appeared to be choking him, and all he wanted was out.

The Lucas account of the incident in a newspaper interview stated that he was riding as a passenger. That could be, but so was Jack. This was the only accident during the whole week.

We were lucky in having good weather for the air meet. Charlie Lindbergh had a good rest at Cap Laird's lodge where they named the lake after him. The Wright people had a chance to give his airplane engine a good check in Butte.

Following this air meet the Montana towns looked forward to the next aviation activity, which was the New York-Spokane Air Derby, scheduled to start on September 19, with three Montana planes entered.

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## T. G. Stone

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T. G. Stone was a telegrapher at Custer who followed flying activities in the Billings area with interest. Evidently he was overcome by the super-salesmanship of "Cupey" Lynch, who in 1927 sold him an OX5 Lincoln Page airplane, along with a flying course with a takeoff and land curriculum which Stone acquired all in one day — the same day that Lynch delivered the airplane to him.

Stone was unusually tall and, when flying an airplane, he had to crouch down to keep behind the windshield in the rear cockpit. It looked more as if he were riding a horse than flying an airplane, and the airplanes that I saw him flying did not have an adjustable seat or adjustable rudder controls. These refinements were dreamed up later.

The Lincoln Page airplane was a two-cockpit open biplane built exceedingly strong at the sacrifice of performance. This airplane did not last very long, and Stone, in the spring of 1928, purchased a long-wing Eagle Rock from Grady Woodard and Bob Westover of Billings. He polished up his flying with Vern Lucas as instructor and set out to recoup his investment in carrying passengers at fairs and rodeos.

Stone was one of the participants in the air show staged at Miles City in the fall of 1928. He did well in passenger hauling and collected prize money in some of the events. I remember a highlight of the Miles City air show which was staged in dedication of the airport where it is now located north of the city. This particular event was planned by myself and Earl Vance, and the results exceeded all expectations.

We had the announcer — the conventional man on horseback, with a megaphone — announce that I was going to take up an old lady from Ekalaka, over ninety years old. He added that I would be glad to give a free ride



*Miles City Air Rodeo, 1928.*

Frank Wiley



*Earl Vance and Waco 9 airplane.*

Frank Wiley

to any other person in the crowd of the same age or older. It was a pretty sure bet that there wouldn't be a person that age attending the air show.

We had a man planted in the crowd who shouted that there was a lady with him who wanted a ride. This was timed to happen just as I was taxiing out to take off. Vance, dressed up as an old lady in his wife's coat and my wife's hat, was carefully assisted to the airplane and placed in the front cockpit. With his small stature and weatherbeaten face, he made an excellent character, who looked the part. I climbed out of the airplane, leaving the engine running, and walked through the crowd to the fellow who had announced he had a second passenger.

In the meantime, Vance eased the throttle open, flying from the front seat. As the airplane started down the field I turned and ran after it as if trying to catch it. Several things happened quite suddenly; I am not sure



of the sequence, but I remember Stone following me in pursuit of the airplane. He would have caught the tail surfaces if I hadn't fallen down in front of him to prevent his stopping the show.

Vanee took off in a very realistic, erratic performance, dragging first one wing tip and then the other and, at the last minute, lifting the wing over his Stinson Detrouter which was parked immediately in his takeoff path. The excitement and consternation of the crowd was everything that might be desired, as the poor, old lady from Ekalaka took off helplessly in the pilotless plane, cavorting around the sky in an evidently uncontrolled manner.

Our boy planted in the crowd, Vern Lucas, was beside himself with laughter. A prominent Miles City contractor standing next to him, seeing nothing humorous about the tragic situation, laid him flat with one efficient poke on the chin. Several people rushed to their cars to leave the area, and a panic would have developed had not Vanee miraculously returned to the field, landing in what seemed to be an uncontrollable accident which didn't quite materialize. I had to avoid quite a few people for some time afterwards, as they were still mad about the hoax which we had perpetrated to stimulate interest.

This same gag was used many times following the Miles City air meet, as a questionable stimulant to the development of interest in flying. I will always remember Stone and those long legs of his as he made every effort to catch up with the airplane taking off with the poor old lady from Ekalaka. Vanee related to me later that while he was taking off, crouched down in the front cockpit, he suddenly looked up to see his own airplane immediately in front of him, and was barely able to avoid a collision.

Stone met an untimely and tragic death while flying at an air show in Kansas. The story, as related to me, was that he had taken a parachute jumper up; the program had included an event in which the parachute jumper would climb out on a wing tip and do what was known as a "pull off". In this procedure the jumper worked his way out on a lower wing, being careful to step only on the rear spar of the wing, and walking out to the wing strut. Here the technique was to hold onto the wing strut while standing on the lower wing, and pull the parachute ripcord. In some cases, the parachute used was what was known as a balloon parachute, having a bag containing the chute fastened with a rope to a wing fitting or the fuselage structure. When the parachutist jumped, the chute was pulled out of the bag, and usually opened.

In this case, it seems that the jumper became tangled in the wires or rigging of the wing, and the parachute could not be released. The jumper was left dangling, behind the airplane, out at the wingtip. The airplane was unmanageable, and Stone climbed out on the wing where he released the parachute, following which it opened and the jumper came down successfully. Stone was unable to regain the cockpit and get control of the airplane.

This pilot was one of the many who lost their lives in their enthusiasm to thrill a crowd of spectators — people who usually were afraid to fly, and afraid they might — but someone always has to be a pioneer!

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# Grady Woodard

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Grady Woodard moved west from North Carolina with his father, to a wheat farm near Moscs Lake, Washington. The family next moved to the Hardin area, where they homesteaded. Being mechanically inclined, Grady got into the trucking business in Billings, Montana.

While operating a freight line from Billings to Roundup, Grady took flying instruction from Vern Lucas in 1927. Instruction was rather informal. After a few hours' dual instruction, he and Earl Hale decided they should solo, so Grady took the airplane up, with Hale going along for moral support. Both of them were then students of Lucas.

Woodard purchased an OX5 Eagle Rock from Bob Westover, and he and Lucas took delivery on the airplane in Denver, early in the spring of 1928, making somewhat of a record in a nonstop flight from Denver to Billings in 7 hours and 13 minutes. Woodard, Hale and Westover then engaged in general flying operations.

Riding on the crest of the public interest in the Lindbergh flight, they paid for Woodard's first airplane in one week's barnstorming, following which Woodard purchased another Eagle Rock and expanded his aviation operations.

The next airplane was a Ryan Brougham, a four-passenger, cabin airplane with a J5 Wright engine. Woodard, Westover and Hale formed a



*A group of airplanes at Woods' farm; Curtis Junior pusher; Aeronca C3; OX5 Robin, and NB Barling.*

Ray Woods



company known as the Billings Air Transport, and were agents for several makes of airplane including the Eagle Rock, Ryan, Barling and Monocoupe. There was quite a boom in flying operations in the Billings area, and this company had some keen competition from O. E. Lee and Partington Skyways, who were agents for the American Eagle airplane.

Woodard was active in northwest flying between 1927 and 1930. He was one of the first pilots in the state to obtain a transport license and an A and E mechanic's license.

His aircraft sales and charter operation did not survive the depression. Grady went back into the trucking business, putting in several years as a driver for Consolidated Freightways and then in gold mining. He now operates his own business, a heavy equipment machine shop, in Billings.

In World War II, Woodard worked for Honeywell Electronics in Minneapolis, in the development of electrical controls for superchargers and in autopilots used on the B17 and the B29.



*Grady Woodard, Bob Westover, and paying customer, with Billings Air Transport's Ryan Brougham.*

Bob Westover

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## Ray Woods

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In 1927, Ray Woods was associated with Doc Longeway in barnstorming operations around Great Falls. He received flight training from Longeway and was soon recognized as an excellent airplane mechanic. Ray's commercial flying activities for some time were discontinued when Longeway accepted the job with the Department of Commerce as a safety inspector. Following this Woods engaged in farming north of Great Falls, but he continued to have an interest in flying.



*Ray Woods and Waco 9.*

Ray Woods

Ray, a very successful wheat farmer, is a perfectionist with several hobbies. He built a well-equipped shop on his farm and has done custom maintenance and overhaul work for many airplane owners in the state. As a sideline to farming, he engaged in airplane sales and repair work.

During World War II, Ray volunteered for work with the Civil Air Patrol, and flew as a pilot with this Air Force auxiliary organization until hostilities ceased in 1946.

Ray is an active Flying Farmer, having a landing strip on his farm located about ten miles east of Brady. Now that he has retired from aviation activities, he pursues two hobbies, geology, in which he is an avid rock-hound, and the operation of a high-power amateur radio station. Ray has one of the most powerful and best-equipped amateur stations in the state, and he and his wife are both licensed radio operators.

A prized possession on the Woods farm is an exhibit in a native rock collection. The beautiful specimens in this collection have come from all parts of the western United States, and were cut and polished in the Woods shop by Ray and his wife.

The OX5 engine in the aviation exhibit in the State Historical Museum was contributed by Ray Woods, together with several aviation periodicals of the era of the twenties, which are now in the aviation history files.

Ray Woods is an authority on vintage airplanes and motors, and a licensed airplane and engine mechanic.



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# George Franklin

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An interesting and revolutionary airplane engine was developed in Miles City in the late 'twenties. This motor was designed by George Franklin, who came to Montana in 1920, where he operated an automobile repair shop. Franklin had a fantastic background of mechanical experience, but due to his modesty very few people even now, know of his accomplishments.

George Franklin was born in England in 1891. There at the age of twelve, he found employment as a groom working for a titled Englishman. This Englishman used to ride with the hounds, and on fox-hunting expeditions he would have George ride a fresh horse for him, trading with him in the middle of the chase.

When Franklin came to the U. S. he landed in Boston, in 1903. He next arrived in American Falls, Idaho, shortly thereafter, and was employed on ranches in that area. Being mechanically inclined, he improved himself by taking International Correspondence School courses in mechanical engineering.

The first mechanical job materialized for George when he was employed by the LaRue Construction Company, a Detroit engineering firm which had the contract to construct a sugarbeet factory in Twin Falls in 1912. After the factory was built, Franklin stayed on to train the operational crew for the sugarbeet company. He then reported back to the LaRue Construction Company in Michigan, following which he developed several mechanical ideas, on some of which he obtained patents.

Inventions developed by George Franklin included a spark plug with an interrupted spark gap, the basic patents on which he relinquished to an x-ray manufacturing company; a four-cylinder rotary valve engine, and some experimental work on a gas turbine engine. Franklin also invented an electric oil gauge float for industrial motors, which automatically turned off the ignition when the oil became low.

When World War I started he was employed by the Fisher Body Company in the construction of the Liberty-powered DH4, the observation airplane that this country produced during World War I. Franklin at that time worked at McCook Field with other engineers in the development of the Liberty motor. In relating his experiences to me at Las Vegas, George commented that he had a liking for the western part of the country, with a pleasant remembrance of his ranch days in Idaho. He said that he became dissatisfied with living in a high density area such as Detroit when an automobile got out of control and hit two of his youngsters who were playing in their yard. Both youngsters recovered from their injuries, but George packed up his family with an idea of moving west to the most isolated area he could find. He came to Montana, locating in Broadus in 1920, where he was an automobile mechanic. Even today, Broadus meets



*World War I picture of George Franklin.*

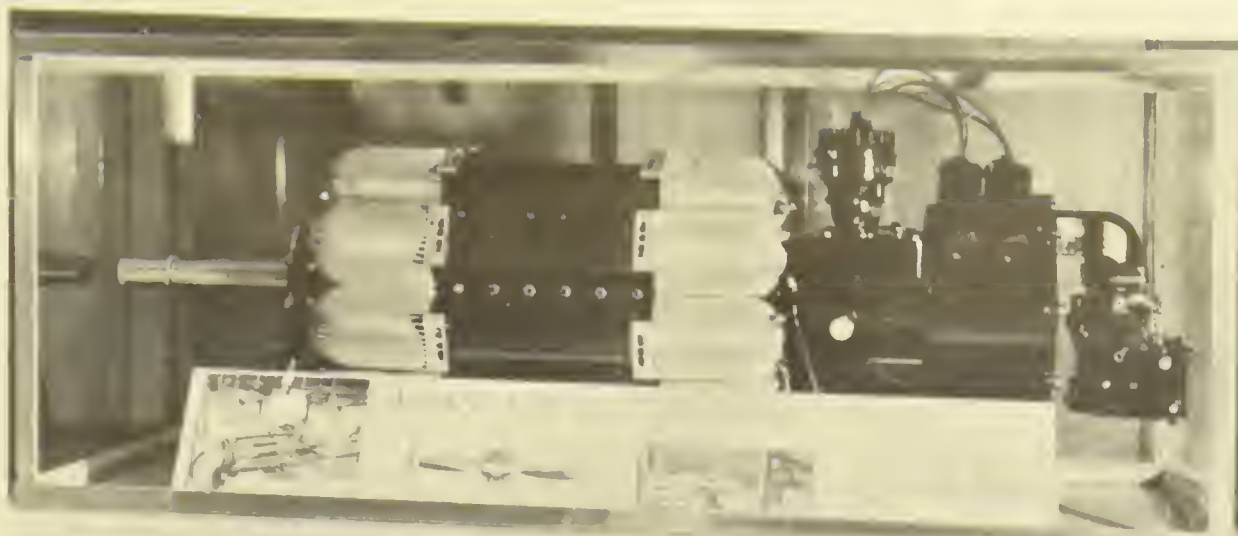
George Franklin

the basic requirements for being an isolated area. George moved to Miles City in 1921, where he operated his own automobile repair shop. Here he did the basic design work on his unique airplane engine.

I knew George in Miles City, and it was when I was a flight operator there that he first showed me his plans for the unique cam-operated motor. George needed capital to develop his idea. Several people in Miles City put money into his venture and a corporation was formed which was known as the Franklin Motor Company. People who owned stock in the company included Bill Ring, Prescott Boutelle, Art Schnod, George Stockhill, Ray Clevenger, Jack Cotter, Al Jacobs, Ralph Harris, Sol Heron, Jake Terrance, and myself. Some \$15,000 or \$20,000 was raised, and Franklin went to Kansas City, Missouri, to build a test engine, doing the development at the Stafford Machine Works, a manufacturing concern which had formerly built automobiles.

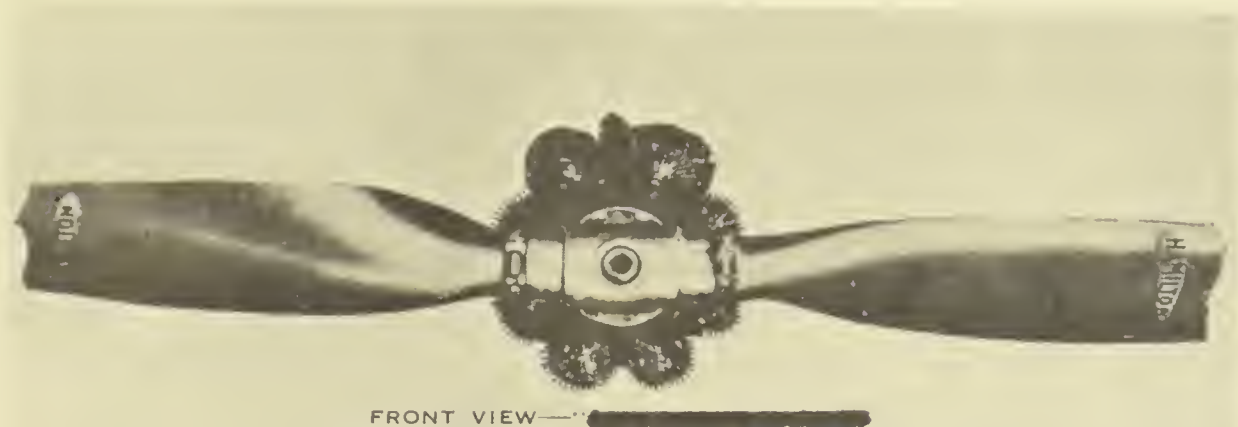
I visited with Franklin early in 1928 in Kansas City, at which time the building of the engine was quite well along. Miles City stockholders made frequent trips to Kansas City to watch the developments. The motor was built and ready to run in a surprisingly short length of time. Aviation people from several parts of the country watched with interest as this motor was run on a test-stand. The Franklin engine was a 16-cylinder opposed motor with a cam configuration. This two cycle engine had a





*Franklin experimental aircraft engine.*

George Franklin



FRONT VIEW—

THIS MODEL DEVELOPS 400 H. P. AT 2000 R. P. M.—NOTE SMALL  
FRONTAL DIAMETER OF ENGINE

*Frontal view of Franklin engine.*

George Franklin

Roots-type supercharger. A unique feature of the supercharger was that the oil pumps were incorporated in the base of the blades, which oscillated as the supercharger revolved in its eccentric chamber.

The motor blew up on the first test run, and a new cam had to be designed. At that time several other changes were made in the motor. The revised engine ran with phenomenal performance and we Miles City stockholders were understandably optimistic, as this motor developed 400 hp. on a dynamometer test. It weighed 400 pounds, and the frontal diameter was 18¾ inches. The engine had many features incorporated in jet engines today.

The Kansas City Chamber of Commerce, along with aviation people in that area, were highly enthusiastic about the motor. They offered a factory site and guaranteed to sell, through the Kansas City stock exchange, any amount of stock we cared to release. I had visions of flying the latest Travel Air mystery ship; other stockholders had visions of big automobiles and ranches stocked with pureblood, whitefaced cattle. A lot of people in this country had illusions and visions at that time, which were terminated very definitely with the stock market crash in 1929 and the following depression in the 'thirties.

If you are interested in the mechanics of a unique aviation engine, I would suggest that you visit the Montana Historical Museum, where

the Franklin engine is on permanent display under glass. It is a symbol of and monument to the ingenuity of the inventor, who had vision and individual initiative, characteristic of the kind of people who have made our country great.

After the 1929 stock market crash, Franklin picked up his marbles and moved to Reno, Nevada. There he was engaged as an instructor in mechanical engineering at the University of Nevada. While instructing at the school, he developed a four-cylinder, water-cooled version of the Franklin cam engine.

George, in reminiscing on his mechanical background, said that he became discouraged after having devoted a lifetime to mechanical devices without much material benefit. Subsequently he had an opportunity for a position as a construction engineer for the Federal Housing Authority. Accepting this position in 1933, he showed characteristic ingenuity and ability at this work, as within a year he became the head field engineer for an area which comprised all of Nevada and the northern half of California.

In 1934 he left the FHA to engage in the real estate and contracting business in Las Vegas, where he now resides, heading up a company known as the Franklin Realty and Development Company.

George Franklin still has an interest in mechanics. During World War II he developed an electrically-controlled power turret, which, after being turned down by our government, was adopted by the British and used in the gun turrets on many British tactical aircraft.

George Franklin's son, George Jr., a B24 pilot in World War II, was decorated for combat service. He, too, lives in Las Vegas, a practicing attorney.

George Franklin today has warm recollections of his days in Montana, evidenced by his donation of his airplane engines to our State Historical Museum.



*OX5 Travel Air, C4417, 1928.*

Joe Engel



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# Barnstorming

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In 1928, construction work on a branch railroad from Glendive through Circle to Brockway was completed. The people of that area, being in the mood for a good celebration, really went all out to have a dedication program at Circle. The railroad gave full support with a special train from Glendive on the new branch line. The passenger list included railroad officials; political candidates; regional representatives of name-brand equipment; state, county and city officials; town folks; country folks; ranchers; and farmers. Some ten thousand people joined in the celebration which included a carnival and some dozen airplanes to carry passengers in a real barnstorming wingding.

I was operating out of Miles City with an OX5 Travel Air. I got all set to leave early for Circle on the morning of the celebration, having sent a car ahead the night before, driven by one of my students, Johnny Wise, with a load of five gallon milk cans filled with aviation gas, spare parts, and tools.

Coming out of the Met. Cafe after a five a.m. breakfast, I met Austin Middleton, who was leaving for the dedication with A. C. Door and some other people. Austin asked if I was going to Circle, I told him I sure was, and that I had a seat for him. He was a bit hesitant, never having been up, but finally he said he would "come along".

This was a pleasure for me, as I always enjoyed giving someone their first ride and seeing their excited interest in their first look at a familiar area from the air. There was something about an open cockpit airplane, flying at low altitude and low speed, that was really exhilarating. This has all been lost in today's competitive efficiency; to cruise at "x" altitude, at "x" knots, with "x" manifold pressure, "x" number of buttons to punch, and "x" frequencies to use.

You could fly along a ground track established by check points, then pick up a magnetic heading and, flying at 50 to 200 feet above the terrain, see a jackrabbit burst out from behind a sagebrush, or a coyote give up the stalk on a rabbit, giving you a dirty look from yellow eyes before spinning his wheels to get away from that monster competing with him for his breakfast.

You could check your drift with the smoke from a shecpherder's wagon as he cooked his breakfast, and see his sheep start to pile up on the bed-ground, too startled to move far before you were gone.

It was good for a chuckle to break over a rise and, at fifty feet over a dryland farm house, wave at some embarrassed farm wife midway to the "biffy."

Something to note was the common instinct of little white-faced calves in the spring, to head for their moms, and the moms wheeled to face

you; there you could see the expressiveness of the western adage "high-tailing it." I always enjoyed the rakish wave of the calves' tails as they scampered to the safety of their mothers.

Austin actually enjoyed the ride to Circle. When we got there, however, he hurt my feelings by trying to pay for the ride. He had gone to school to my mother; I had known him all my life and he had done me many a good turn. When I refused pay he asked how I made any money with that machine. I told him "just like the merry-go-round at the circus: so much a ride." Paddy Ryan, a perennial world's champion rodeo rider, came up about that time. He and Austin took on the jobs as my barker and ticket seller, and I was in business.

At Circle we flew from a flat just east of town, landing over the new railroad grade. As the crowd got going we had a real traffic problem with a pattern similar to the touch-and-go landings by medium bomber crews being trained in World War II.

At the Circle show were Martin Score of Stanton, North Dakota, with a new Travel Air flown by a North Dakota pilot named Snyder, with Johnny Osterhouse as ticket salesman; "Cowboy" McMahan, with an American Eagle from Billings and Maurice Lindsey as ticket salesman; Kenneth Beer of Ekalaka with a Lincoln Page; T. G. Stone of Custer with an Eagle Rock; Grady Woodard of Billings, with Earl Hale as ticket salesman, in an Eagle Rock; Billy Combes of Sidney with a Waco 9, flown by a transient pilot named Lacey; Ed Canfield of Williston in an OX5 Travel Air; Titus Richards of Froid in a Travel Air; and myself in a Travel Air.

The competition was rough. Everyone tried to bluff the other out, in landing and in choice of parking space to load and unload. Rides were five bucks a passenger until someone losing out cut the price, which then got down to three dollars with shorter hops. You could, but didn't quite, make a round trip in about five minutes with two passengers, and about eight trips an hour. Visibility on the field was down to about 200 yards because of the dust, and it was a hot day.

Flying was a real scramble. The first pilot to stub his toe was Kenneth Beer in his logy, old Lincoln Page. I was right behind him when he came in too low and wiped his gear off on the railroad track. He flew on into the field, landing on his belly in a cloud of dust. I pulled over to one side and landed. As I rolled by I could see him and his passengers, all goggles and helmets, sitting flat on the ground. They were looking straight ahead, stunned and motionless, as if they had been there all day.

In competition with the flies, I ate a hot dog and washed it down with a strawberry pop. I didn't get out of my airplane or shut the motor off all day long, except to put in gas. Late in the afternoon the local dealers ran out of gas. I had the show to myself, much to the disgust of the other pilots, whose hostility was something to keep in mind as one by one they had to quit — no gas!

Martin Score came over and told me his pilot had taken off and hadn't come back. So I scouted around as I hauled the next load. There he was — that brand new Travel Air plastered on the side of a gumbo butte about two



miles from the field in line with the takeoff heading, his inebriated passengers minus teeth and with one broken ankle, and Snyder, the pilot, with a broken leg and ribs.

I visited him later in the hospital, where he told me he had flown from Wichita to Stanton, North Dakota the day before; from Stanton to Circle that morning; and then hauled passengers all day! We concluded he had passed out from fatigue, right after takeoff. The Travel Air flew on until the hill got in the way. The ship was just about a washout. I bought the wreck, trucking it to Miles City, but sold it back to Score — less trucking cost — when he decided to rebuild it. I also sold him the parts, as I was the Travel Air dealer for Montana.

I flew until dark, then slept under the wing; on into Terry the next morning for gas, and home with about \$600 in cash. I had lost my passenger, who was politicking, and also my rodeo-riding ticket salesman, who joined the other punchers in nocturnal activities. It was a long day — five a.m. to nine p.m. and ten hours in the air! Wish I could do it again!

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## Ford Reliability Tours

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The Ford Reliability Tours were annual events sponsored by the Detroit Board of Commerce, to promote safety in civil flying, develop increased performance of aircraft, and stimulate public and community interest in airfields and aviation. A substantial by-product of this interest was the development of an all-metal airliner, the celebrated Ford Trimotor.

Prizes and trophies were put up by the Ford Motor Company. The performance of the aircraft was evaluated on a formula, the components of which included an objective of 80% of the maximum speed and 75% of the load-carrying capacity of the competing airplanes. In the first three years of the annual Ford Reliability Tours there were no injuries to participating personnel. The 1925 tour covered 1,000 miles; the 1926 tour, 2,600 miles, and in 1927 mileage totaled 4,000 miles.<sup>(1)</sup>

In 1928 there was one crackup just as they started, but the tour was continued then without serious incident. The route covered 6,300 miles in a period of three weeks and included a sweep through Montana, with the tour arriving in the state on June 20 from Spokane, Washington. They made overnight stops in Missoula and Great Falls, then a luncheon stop in Froid, and on to Minot, North Dakota for overnight on June 22, 1928. The Ford Reliability Tour was the biggest aviation event ever to take place in Montana, and everyone in the state planned or hoped to see this spectacular assembly of name pilots and aircraft.

Missoula went all out to welcome the air tour participants with the Rotary Club underwriting the program and an air tour committee there taking over the project. This committee was headed by H. O. Bell as chair-



*Eddie Stinson with Wasp Stinson cabin airplane.*

George Lowers

man. Other members included Thomas Cummings, Tom Marlowe, James Busey, Joe Miller, Joe Murray, G. C. Perry and Louis Croonenberghs. The ladies of the tour were given a special dinner in town at the Chimney Corner and the men were taken up the Blackfoot for a stimulating outdoor fish fry. Missoula anglers had picked up a catch of 1,200 trout for this occasion, which was remembered by the visiting pilots to be one of the outstanding entertainments of the entire trip.

Some 10,000 western Montana people came to Missoula to see the tour airplanes and, in contrast, these included a group of six pioneer lawmakers who had been having a reunion at Salmon Lake as guests of W. A. Clark. These legal eagles had participated in the assembly in Helena 39 years before to draw up the state constitution for Montana. Each of these men had come to Montana either by river steamer or on foot, and here in Missoula, they witnessed a nationwide tour by air of some 200 visitors to Montana.

This distinguished group of lawyers included Walter M. Bickford of Missoula, O. F. Goddard of Billings, D. M. Durfee of Phillipsburg, George B. Wineton of Anaconda, Judge C. H. Lowd of Miles City, and J. E. Kanouse of Townsend.<sup>(2)</sup>

The Tour aircraft departed from Missoula for Great Falls on the morning of the 21st, and were again received with Montana western hospitality by an assemblage of Montana people from that area, headed by Earl Vance, local Great Falls aviator.

The Pathfinder airplane led the group into Great Falls. They landed at the Vance airport located on the bench north of the city. A mile-long runway had been prepared for the occasion. "This giant, trimotor Fokker was loaned by the army. It had a wingspan of 65 feet, was 48 feet long, the center engine propeller had three steel points while the outside engines had two each of mahogany, and this celluloid bird weighed three tons."<sup>(3)</sup>

Entertainment was arranged in Great Falls by the newly-formed local chapter of the National Aeronautical Association. O. I. DeSchon was presi-





*Buhl Air Sedan.*

Harry Northey

dent, and the tour committee included Arthur W. Strain, Earl Vance, W. W. Cheely, Sam Stephenson, O. S. Warden, A. E. Schwingle, Lec Ford, Jim Flaherty, LaRue Smith, John Dawson and Eddie Shields.

There were 27 airplanes on this fourth Ford Reliability Tour, which included nationally prominent pilots and aviation people. The Pathfinder airplane crew, with timers, referees and officials, included Ray Cooper, tour manager; pilots Captain R. G. Green and Lt. Frank Tyndall; timekeeper Arthur G. Schlosser, a nationally-known balloonist who won the International Gordon Bennett Cup in 1927. Arthur's brother, Sherman Schlosser, lives in Miles City. Weatherman C. G. Andrews of the United States Weather Bureau was also along to keep the weather under control.

Pilots on the tour included:<sup>(4)</sup>

William S. Brock flying a Bellanca airplane. He was accompanied by Edwin F. Schlee, who had gone on a world flight with him, canceled in Tokyo by public request. (Too risky.)

Frank M. Hawks, flying a Ford Trimotor, and party.

N. J. Kelly, flying a Travel Air.

Benny Howard, later of National Air Races fame, flying an Eagle Rock.

Dan R. Roberts, flying a Curtiss Robin.

David P. Levy, 21 years old, flying a Stearman.

Alger Graham, flying a Buhl Airster.

E. W. "Pop" Cleveland, flying a Ryan Brougham.

Louis Meister, flying a Buhl Air Sedan.

Al Henry, flying a Ryan Brougham.

George Meissner, flying a Challenger.

C. P. Clevenger, flying an Eagle Rock.

Dr. J. O. Nowick, flying a Mohawk Pinto.

George P. Peck, flying a Travel Air.

C. G. Runkell, flying a Fleetwing.

Vance Breese, flying a Ryan Brougham.

J. Sadowsky, flying a Swallow.

John P. Wood, flying a Waco.  
Charles M. Meyers, flying a Waco.  
Eddie Stinson, flying a Stinson Detroiter.  
Bob Cantwell, flying a Lockheed.  
Richard W. Pears, flying a Fairchild.  
George W. Holdeman, flying a Bellanca.  
Mrs. Phoebe Omlie, flying a Monocoupe.  
M. Gold Beard, flying a Waco.  
Jack Atkinson, flying a Monocoupe.

The hospitality of Great Falls was typical of Montana. Local pilots on the reception committee included Vance, Byron Cooper, and Forrest Longeway. A dinner for the visitors was sponsored by the Texas Pacific Coal and Oil Company. The Tour at this point had completed 4,200 miles of a 6,300-mile itinerary. David Levy, the youngest pilot, was high point man.<sup>(5)</sup>

At the banquet, local air enthusiasts reminisced about Eddie Stinson's former visit to Great Falls in 1923 to pick up the Dempsey-Gibbons fight pictures. At the insistence of spectators (and under protest) he gave a pretty rough stunt ride to a prominent dignitary, who came down and told about being slapped in the face by the First National Bank building, and hadn't been up since. It was Eddie's sister, Katherine, who carried the first official air mail from the fairgrounds to the post office in Helena in 1913.

The Tour took off from Great Falls on the morning of July 22 and stopped at Froid, where half the population of eastern Montana was assembled to meet them. I flew up to Froid from Miles City with my wife in an OX5 Travel Air. On that Sunday morning the Froid airport was all painted up for the occasion.

Froid had acquired its enthusiasm from Senator Schnitzler who lived there. The spick and span airport would have been a credit to any major city. There were white runway markers with the "T" symbol and a circle in the center, also in white. Wind socks, fences, parking areas and tie-downs were all marked. A well-organized service crew was on hand to park aircraft, while the National Guard was on duty to handle the crowd. It was the largest gathering ever seen in Froid before or since. The noon lunch was all ready. It included beef, as would be expected in cow country. The number of visiting local aircraft about equalled the number on the tour.

We were all very proud of the hospitality shown by this small Montana community, aided by surrounding towns. Senator Schnitzler did a terrific job as general chairman and host. After the dinner the Tour people took off, all vowing to come back.

The local pilots, including myself, my wife and Senator Schnitzler as passengers, departed for Minot, to take in an air meet scheduled for the same time the Tour would make this North Dakota stop.

We were flying with a group of about 10 Montana airplanes when the old OX5 in my Travel Air gave up right over Stanley, some 20 miles west of Minot. I made a precarious but safe landing in a pasture full of glacial boulders, watching with apprehension as four other airplanes landed to see if they could help. We sent the Senator on to Minot with Cecil Shupe in



another airplane. They borrowed a cylinder and piston and flew them back to me. It turned out that the OX5 had swallowed an exhaust valve.

Harold Haines, a local garage mechanic at Stanley, came out to help. We got the new piston and cylinder installed and went on to Minot in time to win the dead-stick landing contest late that afternoon. Haines got the flying bug that day, and in later years became a very active pilot and legislator in Montana.

The dead-stick landing contest in those days was for real: you cut the switch over the spot at 1,000 feet and came in for a landing any way you wished. The Minot air meet was a real wingding. Seemingly, North Dakota people all wanted to ride, and we did well hauling passengers. The Tour people helped with the selling of tickets, since most of them had at some time earned their living by barnstorming and carrying passengers.

The passenger-carrying technique here followed the same procedure as elsewhere: you watched the lineup of passengers waiting to ride, giving short rides when the waiting line was long, and long rides when it was short.

I remember telling my wife to quit chasing a five-dollar bill that blew out of her hand and start picking up those the prospective passengers were waving at her. A real heyday, and we liked it.

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## Herman Henrickson

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Herm Henrickson was raised at Kenmare, North Dakota. As a youngster he became interested in aviation when Otto Timm came to his town in 1912. Herm helped Timm build an iceboat driven by an airplane engine and a propeller. He had an arm broken when he was hit by the propeller in starting the engine. Timm had previously built airplanes in Pennsylvania, Chicago, and LaVerne, Minnesota.



Stan Cavill and his Waco 10.

Stan Cavill

As a young man, Henrickson was employed as a Dodge salesman in Minot, then homesteaded in the Glasgow area. He moved to Harlowton in 1920 and by 1931 was the Shell dealer and Ford agent. Henrickson moved to Billings in 1934, where he has been a wholesaler for Shell, Carter and Humble ever since. Herm's sons, Bob and Howard, carry on the wholesale operations, and the company now distributes gas and oil at Logan Field at the Billings municipal airport.

In 1928 Herm Henrickson and Stan Cavill purchased a Waco 10 from Earl Vance. Herb Halloway of Harlowton joined them in their flying activities, as did Perry Moore and Bob Baxter, ranchers in that area.

In 1929 their flying operations were disrupted by a fire which burned up their airplane and hangar. Two boys from Great Falls had set the airplane on fire in an attempt to steal it to fly to Alaska. The same two boys had the night before attempted to steal an airplane in Miles City. They broke into the hangar there, started the engine on one of the airplanes, and as they tried to taxi it out of the door, the propeller was broken on the overhead door frame. They then took the tools and supplies in the hangar, with several cans of gas, and loaded a J5 Eagle Rock which was outside. But they couldn't start the motor with the complicated — to them — inertia starter.

Abandoning the Miles City attempt, they caught a Milwaukee freight train to Harlowton, where their second adventure was more disastrous. These enterprising young hoodlums, when caught near Lennep by Henrickson and Halloway, stated they wanted a plane to start a commercial flight operation in Alaska. Neither of them had had any flight training.

Herm's next airplane was a Challenger Robin which he purchased in Great Falls. He was interested in hunting and fishing, and used his airplane to fly into isolated fishing spots. Henrickson originated the planting of fish by air, working with conservation officials in perfecting the live drop procedure now used by wildlife agencies throughout the mountain areas to restock lakes.

Henrickson and Dick Logan made several fish drop experiments on a small lake adjoining the Billings airport. They found that, when dropped from a water container in the airplane, the fish would survive a fall of several hundred feet with no ill effects. Following these experiments, fingerlings and fry were dropped in many Montana lakes by Henrickson and his airplane.

Herm extended his fish planting operations, working with John Schoffield of the Montana Fish and Game Department in Big Timber. Live drops of eastern brook, cutthroat, and rainbow trout were made in the Cooke City area and at Aero Lakes numbers one and two. The Montana Fish and Game Department has found that air transporting and planting is more economical than truck hauling, in restocking lakes and streams requiring transportation of fish for distances over fifty miles.

Herm Henrickson later owned a YKS Waco cabin airplane which he used extensively in flying to isolated landing strips in mountain areas in the state. Herm is one of the charter members of the Montana Pilots' Associa-



tion, and the first president of this state organization. He was the first wing commander of the Civil Air Patrol in Montana. His successful use of his airplane in hunting is obvious in this picture of him, with his airplane, taken on a hunting trip.



*Henrickson and Cavill at Lake Ronan.*

Stan Cavill



*Herm Henrickson, resourceful hunter.*

Bob Henrickson

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## O. E. Lee

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In the 'twenties, there were very few bankers who would loan money to a prospective airplane purchaser. Pilots and airplanes were not considered a good risk.

But there was one venturesome financier who lived in Wolf Point who was evidently a good gambler. His name was O. E. Lee, and he had a lucrative business in the financing of automobiles. Lee became interested in airplanes shortly after he moved from Wolf Point to Billings, where he expanded his operations to include the financing of airplanes. He took on the distributorship for the American Eagle airplane in 1927, and thereby made it possible for a good many Montana pilots to buy airplanes. Most of Lee's customers were boys who had been turned down by the local banker, or parents with conservative views.

A factory pilot from the American Eagle Company came out to Billings to show Lee a new cabin airplane. The pilot of this three-passenger cabin craft was Carrol Cohan, who later became a Washington official. The factory pilot was taking off to the south on the Billings airport with two passengers. He failed to get off, stubbing his toe, as it were, on the edge of the rimrocks. The airplane crashed down in a field on the edge of town. The pilot and one passenger were injured, but the other passenger, in a panic, opened the door and jumped as the airplane went over the rimrocks. He was killed instantly.

Some of the proud owners of American Eagle aircraft included Clair McMahan, who demonstrated airplanes for Lee in Billings, Elmer Schneider of Baker; Johnny Wise of Miles City; Oliver Wollop of Sheridan, Wyoming and Clarence Urie of Livingston.

Lee terminated his airplane financing business during the depression in the 'thirties. His sons, however, now carry on an interest in flying and are still active as pilots in Billings.

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## Roy Milligan

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In 1927 I had a flight operation in Miles City known as the Yellowstone Flying School. One of my customers was Roy Milligan, who now operates the Miles Howard and Milligan Hotels in Miles City.

Roy and I grew up together in Miles City. We survived the hotrod age, both having had unpardonable pride in our considerable skill at motorcycle riding. When I set up a flying school, Milligan was one of the first to sign up.





*Winter flight operation at Miles City.*

Frank W. Wiley

For some reason, his father and mother frowned on Roy's interest in aviation, and his wife continually had visions of becoming a widow.

I have a vivid recollection of the day that Milligan soloed, and I know that he has, too. One of our keenest aviation buffs, as a spectator, was "Kid" Brown, who had had a very colorful career in the Alaskan Klondike, and in many activities. Brown was the first white child born in Miles City, having lived in "Old Town" before the town was moved to its present site.

I had promised "Kid" Brown I would tell him when Milligan was going to solo. But following the tradition of that day, I was very careful not to give Milligan any indication of when he would first fly by himself. It was then considered that the mental pressure confronting a student anticipating his first solo flight would be too much. I had also informed Roy's wife that he was going to solo that morning, and both she and "Kid" were at the field for the occasion.

Being short on one end, I always carried an extra cushion with me when I was giving dual instruction in the OX5 Travel Air. In soloing students I would climb out of the front cockpit, fasten the safety belt, pick up my cushion, and give final instruction to the student in the rear cockpit while standing on the lower wing.

On this morning, I had Milligan make several landings and then taxi the airplane into position for another takeoff. Climbing out and picking up my cushion, I noted a look of consternation on his face and he first refused to take off. While he was in a state of shock I repeated my instructions, and

before he knew it, he was in the air. He made several good landings, each one building up more confidence.

The "Kid," who stuttered but was never at a loss for words, used to enjoy relating his impression of Mrs. Milligan during the flight. She sat in her car going through her beads all the time Roy was making his first solo flights.

"Kid" was one of my best generators of aviation interest in our community. Milligan continued flying, and has accumulated several thousand hours. He and I had many pleasant experiences flying together.

I remember one day late in the fall when we went duck hunting in a Great Lakes trainer. This airplane was equipped with air wheels—doughnut tires on a small hub, which revolved on the landing gear axles. These wheels, developed by Goodyear, were supposed to support the airplane in deep snow or mud. They worked well in mud, but were a total failure in snow.

Roy and I landed in a field near the Yellowstone River at Kinsey, having previously spotted a big flight of northern ducks resting in an eddy below a cut bank. We sneaked up on the bank and both let go with our shotguns, knocking down several ducks in the large flock which arose as we began shooting.

In the excitement of retrieving our birds, Milligan waded out and fell in over his head. He stubbornly continued until he retrieved the bird which had floated out of his reach. When he crawled out we did have a problem. The temperature was near zero, and a flight in his condition in an open cockpit was unthinkable. I built a fire on the riverbank and a birthday-suited Roy stood next to it for an hour while his clothes dried.

We picked up our birds, mostly greenheads and mallards, and they certainly were heavy. It about broke our hearts to leave some of them when the Great Lakes wouldn't take off with all the weight. When we got back home it took us half the night to dress the birds, and the hanger was festooned with duck feathers for several months afterwards.

Roy purchased an airplane and flew extensively all over the western United States. I remember coming up to the airport in Missoula one foggy morning when our pilot training program was in progress before World War II. We could hear an airplane above the fog, and I asked the CAA communicator who the unlucky pilot was who was waiting around up there for the fog to burn out.

He informed me that it was some silly so-and-so from Miles City named Milligan. I borrowed the communicator's mike while I needled Milligan, asking him how much gas he had and where he would go for an alternate.

Roy has always been a staunch supporter of aviation in Montana, serving as wing commander for the Civil Patrol for the state. He can always be depended upon to give his support to any community aviation development. He has contributed personally and materially to the facilities on the Miles City airport.

I was pretty proud of him as a student, and he has proved to be a capable pilot.





*Elmer Schneider and Vic Granger with airplane No. 5990.*

Elmer Schneider

## *Airplane Number 5990*

This American Eagle airplane #5990 was purchased brand new by Elmer Schneider of Baker, Montana from O. E. Lee, the Billings distributor, in the spring of 1928.

Elmer was a commercial photographer of recognized ability, and a cow farmer. I had given him just enough flight instruction so that, with good luck, he was able to fly his new airplane from Billings to Baker.

The natives accepted Schneider as the local "Lindbergh," his reputation having been acquired by flying across Baker Lake, adjoining the local airport. Like most pilots of that time, Elmer had taken a "do-it-yourself" course of instruction, the success of which was demonstrated one dark night when he and Vic Granger flew in to Miles City in violation of one of the very few Department of Commerce regulations requiring navigation lights.

The pilots from Baker had less than one hundred hours flying time between them, most of it acquired together.

It so happened that Wiley Wright, the Department inspector, was with me at the airport. I drove him out onto the field in my car to see who had landed and to guide the airplane, by the use of the car lights, as it taxied in.

Wright walked up to the airplane and asked who was flying it. Both Schneider and Granger pointed to the other and said, "He is!"

A phenomena in general aviation and in private flying is the noticeable frequency with which an airplane changes owners. Whether this is a good or bad situation is debatable, and the condition has changed little over the years.

Airplane #5990 had an interesting career of about eight years and probably some four thousand hours, or three hundred thousand miles.

Schneider flew the airplane until the old OX5 engine just couldn't turn the propeller fast enough to keep the wheels off the ground. This condition occurred at Harlowton, where he solved the problem by selling the airplane to Herman Henrickson.

Henrickson must have either ground the valves or sawed the tips off the propeller. He, in turn, flew the airplane until it had paid for itself; then he sold it to Gordon Sands.

It is probable that the airplane got a new motor about this time, no doubt acquired from a wrecked airplane powered with the same type engine. Sands flew it for a good many hours on cross-country trips, barnstorming, and on student instruction.

He then sold #5990 to "Chick" Brown, one of his students, a hotrod pilot with a reputation. Chick used the seat-of-the-pants technique of the old iron compass school. He terminated his flying career later, right on course, when he spun in a TravelAir between the rails on the mainline of the Great Northern Railroad.

Brown sold the American Eagle #5990 to the great "Captain" Frakes. With premeditation and deliberate intent, Frakes evaded the Department inspectors long enough to fly this faithful, durable, and heretofore indestructible old wire and fabric bird between two telephone poles at the Great Falls fair.

American Eagle airplane #5990 thus ended its flying career to the amazement of the spectators: it first shed its wings on the telephone poles; then, minus wings, flew through the door of a mock-up barn. Finally, minus various sub-assemblies, it came to a noisy, dusty, grinding halt before the grandstand.

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## *Carl E. Schirmer*

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Carl Schirmer is probably one of Montana's best-known general aviation pilots. He learned to fly in Spokane with Mamer and Bigelow Johnson in 1926.

Carl was raised in Kalispell and was employed for years as a packer and dude wrangler. The slow process of moving people and freight through the isolated, primitive areas stimulated his interest in better things, with a hope that the airplane might some day replace the horse in this line of work.

Carl has always been interested in flying. I remember he told me that as a small boy, while living in Spokane, he had pursued a hot air balloon, flown at the Spokane fair by George Lowry of Butte. Schirmer said someone had told him there was a reward for recovering the balloon, and he, with his little red wagon, chased this gas bag for several blocks in the hope of some material return.

In 1928 Carl became the proud owner of a brand new Hisso Eagle Rock.





*Carl E. Schirmer, Spokane's best-dressed aviator.*

Carl Schirmer



*Roy Shreck and Carl Schirmer, barnstorming with 'Hisso' Eagle Rock at West Entrance of Glacier Park.*

Carl Schirmer

In 1923 he had paid an installment on an OX5 Jenny flown by a partner, a pilot of dubious ability and integrity.

Later acquiring the Eagle Rock, Schirmer tried to prove that aviation was a paying venture. This included barnstorming trips throughout the states of Washington, Idaho and Montana. Like most of us, Schirmer's barnstorming experiences were not always lucrative. But he did acquire a broad knowledge of the many problems involved in airplane operations. He furthered his experience by joining the Air National Guard in Spokane, becoming the squadron engineering officer.

Schirmer survived a bad crackup from a flat-spinning American Eagle. He went on to become director of flight training for the Wallace Air Service in Spokane, in which position he supervised the flight training of several hundred pilots for World War II and the airlines. He also flew several thousand hours as an aerial mapping pilot for the same company, flying extensively in the western United States.

Carl returned to Montana to join the Montana Aeronautics Commission. He was widely known by Montana pilots as operator of the Sky Supply store on the Helena airport. Also associated with the Johnson Flying Service in Missoula, he has had some 40 years of aviation experience and 10,000 hours in flying time.

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## Nelson Story III

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Nelson Story III of the Gallatin area was a most typical Montanan and supporter of aviation development, not only in Gallatin county but throughout Montana and the Northwest. Story's interest in aviation dated back to his boyhood days, at the beginning of the century. His first recollections were of hot-air balloon flights and the exhibition flights by Cromwell Dixon at the State Fair in Helena in 1910.

Story learned to fly in the mid-twenties with "Cupey" Lynch and Bert Mooney as his first instructors. This third generation versatile Montanan had many accomplishments, including a studied flair for engineering and architecture. He was a successful and proven rancher, a professional pilot, and a merchant of petroleum products. He gave good and satisfactory service to his appreciative customers in Gallatin county, both ground-loving and airborne.

It is obvious from the following excerpts from a paper he gave at an annual meeting of the Montana Flying Farmers and Ranchers Association that "Son" Story was also a writer who could ably express his thoughts on paper. The following quotation of his recollections of flying in the 'twenties most certainly cannot be improved upon, and is herewith presented verbatim:

"Initially I would like to give you a brief history of myself. I am not a





*Nelson Story III and Kinner 125 Aero Sport airplane.*

Nelson Story

spectacular, talented nor famed pilot, neither have I great ability as an aviator—in fact, I am still learning. By reason of an early natal day I am simply an old gaffer who happened to learn to fly in the mid-twenties. My instructors were Lt. ‘Cupey’ Lynch, fresh out of the army, and Bert Mooney, later chief pilot for Western Airlines, now retired. Bert had twenty-five hours and I had none, so we got along fine.

“My first mounts were OX5 and OXX Jennies. From them I graduated to Standards and Lincoln Pages. Bert and I had many—what would now be considered—horrendous experiences. I can recall very few times behind those old OXes when they wouldn’t quit cold. That is the reason why I have always considered farmers my very best friends.

“But to go back before all that. After all I am only symbolic of the middle era of flying. A long, long time ago aviation was a great feature of our county and state fairs. Initially, flight was lighter than air. From the infield of the racetrack a huge balloon would be inflated with hot air, and an intrepid soul would hang onto a trapeze below a parachute attached to the gas bag, and float to about a thousand feet above the crowd, then he would yank the ripcord and gently return to earth, waving the American flag to the thrilling music of the band, and the huzzas of the multitude. The balloon would up-end, belching black smoke, and land on either the cereal mill or the N.P. roundhouse, chased by swarms of excited kids, including me.

"Later we enjoyed bevvies of Curtiss and Wright pushers, and at one time were even visited by a Bleriot monoplane which flew quite well. These frail crates would land and take off from the racetrack directly in front of the grandstand. Their short field performance vastly exceeded that of the planes we fly today. World War I put a damper on pioneer aviation, as war always does.

"After the war the countryside was darkened by clouds of surplus Jennies and Standards, and the era of barnstorming began. This was rather a hand-to-mouth, poverty-sticken age of flying, but it did arouse the interest of the people, and during the twenties everybody got into the act. At one time, reasonably unbothered by regulatory agencies, I believe there were over a hundred manufacturers building planes. Some were good while others were definitely lemons. The Gallaudelet, powered by a two-cylinder motorcycle engine, was one of the latter. It never flew more than a few tests. The important thing, however, was that the imagination and inventiveness of aviation was unfettered. The industry and the fraternity learned much, and fast.

"To me, the most intriguing of the pioneer planes were the Cessna Airmaster, the Curtiss line, the Arrows, and the Great Lakes.

"The Airmaster was an all-plywood, full cantilevered, small edition of the great 195. It was urged on by the Warner 145, and was chosen by the industry as the most efficient airplane in the world. I think perhaps it still is — several still exist today in the hands of collectors, and still give wonderful service.

"The Curtiss 'pusher' was a weirdy, and was known as the 'Flying Bath-tub.' It had about a forty-foot wingspread over a short, two-passenger nacelle. Atop the wing and a long, skinny fuselage which supported the empennage, nestled a mighty, three-cylinder Czeckley or seven-barrel Salmson, all of 45 horsepower.

"To fly one of these contraptions was a startling, although not at all dangerous, experience. Because of their vast wing area the takeoff was right now, and they floated in a perfectly level altitude. If there was a slight breeze they had all the characteristics of a VTOL and could fly backward quite handily in a 20 kt. wind. They could also fly as slowly as a fat man could run.

"The Lincoln Page, Waco, Swallow, Eagle Rock, Black Hawk and a few others, were all more or less conventional biplanes, powered with the then-plentiful OX5 engines. The Lincoln Standards were heavier ships with swept-back wings, and motivated by the famous Hispano Suiza engines.

"Here I would like to include a strange observation about pilots of that era. The Robin started something. As aviation became more commercial and passenger comfort became a factor, my early-day compatriots still insisted on riding outside, and they fought doggedly for years until there were simply no more open airplanes.

"I would like to go back again 25 years to the Nicholas Beasley 'New Day' plane built in Marshall, Missouri. I believe Stout of the Ford Trimotor had a hand in the design. This was a little, hump-backed, low-winged mono-



plane, and probably the homeliest craft ever dreamed up. About half-way out on each wing it whooped up in about a 20° dihedral. This wing had the distinction of being all metal, with the exception of the cover. The single spar was a huge, single piece of corrugated sheet aluminum made into a box. The affair was approximately two feet wide by ten inches thick. Ribs as such did not exist, instead shapers were simply riveted to the spar. The whole wing was in one piece which passed beneath the fuselage. This accounts for the fact that the little plane looked something like a constipated camel. The wing was immensely strong, and one of the company sales gimmicks was to place as many fat men on it as could crowd on without the slightest distortion. It was a construction worthy of copying today. This little wonder was also powered with a 45 hp. Salmson. Power didn't count for so much in the old days. If it was a bit shy it was made up for by more area and light wing loading. People weren't in such a hell of a hurry back then.

"I would like to pay tribute to the genius who really had the first airplane in this valley. He is Larry Hecox, now of Livingston. He built it himself from drawings in the *Popular Mechanics* magazine shortly after World War I. It was doubtless the craziest contraption ever conceived. It was a cute little biplane, but the materials that went into its building were out of this world. The main structure consisted mostly of old apple boxes; the covering was his mother's old bedsheets, and the dope was concocted of starch, glue and varnish. Larry looted Belgrade of all wire clothes lines handy for bracing, and the fittings were a tinner's nightmare of anything lying loose. For 'go' up front there was a Metz automobile engine, the only powerplant he owned at the time. Come to think of it, it was sort of a baby Jenny. The dope was strictly unpigmented so you could put it in the sun and look up through the wings to check if all the crosswires were still there.

"Larry fiddled with the little monster for years. Meanwhile I taught him to fly in exchange for his mechanic's services. So, at last, eventually came the great day. He made a clattering takeoff the full length of the field, gained all of fifteen feet of altitude, hooked his feet into a farm telephone line, deployed it out about fifty yards while the Hecox Special slowly assumed a perpendicular attitude, the wire parted, and everything landed, full power, on its nose. Thus into a tangle of wood and wire were dashed the hopes and dreams of years. Of such stuff were made the pioneers of flying.

"The old airplanes were fun to fly, and I still love them. In many ways they were more versatile and enjoyable than the fast, expensive, and so-called 'foolproof' we fly today. Maybe the modern stuff is too foolproof. Any pilot who hasn't flown out in the open air has really never flown. A cold blast on the cheek eliminated the need for a turn and bank, although if you wanted to be fancy you could suspend a bullet from a string tied to the upper wing. The song of the wires indicated airspeed, the altimeter was marked into segments of two hundred feet, and we measured up from the ground, not sea level. While there was a compass, it was seldom used, as most flyboys navigated IFR (I Follow Railroads).

"Everything was stick and simple—sure, we had carburetor ice, but we didn't know what it was. As the planes were draggy and aerodynamically

unclean as all get out, they were so slow that built up 'G's' didn't mean a thing. Every pilot worth his salt was a hot stunt artist; but shedding wings was never heard of. One of the simpler acts was to spin six or seven times around.

"While takeoff was prompt, climb left a little to be desired by today's standards—300 f.p.m. was the average, 500 was hot, and a cruise of 85 m.p.h. was doing good. 100 to 120, and you had a real speed ball strapped to your duff. The comparatively dinky jobs tore along at 45 to 60 m.p.h. Range didn't count much because at such a leisurely pace, three hours was about enough anyway. 5000 feet above ground was a thrilling altitude, if you could make it.

"The engines of those days shared one characteristic: they were heavy, slow, big bore, and relied on sheer push rather than velocity. Props were wood and big. When the power was cut, or failed, they acted out the function of the flaps we use today, only more so. For instance, the OX turned over about twelve to fourteen hundred. Fourteen fifty and you had real dynamite up front, as long as the mag and rockers could take the mad pace.

"In those days there was much more camaraderie amongst flyers. A visit to a neighboring airport, or the arrival of a strange pilot was a social event. Trying out each other's planes was the hospitable thing to do, thus most of us, including yours truly, got to fly every new antique that rolled up on the tarmac. To suggest a check ride would have been faintly insulting, so we just got in and took off very pro-like.

"There existed none of the airport snobbery we encounter today. Kids were always hanging around in open-mouthed hero worship, and for a short hop they would wash and polish your plane with loving care. Mechanics were not A and E then, and for a little stick time they would keep your machinery sweet and gleaming at all times."

In the early 'thirties, Story was a demonstrating pilot and sales manager for the Aero Sport airplane, manufactured in Lincoln, Nebraska. This company built an attractive side-by-side, two passenger biplane with unusual upper and lower cantilever wings. They also developed a long-wing mono-



*Barling airplane, The Golden Hind.*

Ray Woods



plane powered with a Ford automobile engine. The biplane was an excellent airplane, powered with a Kinner 125 hp. motor, but the monoplane was a disappointment to all concerned, including Story. He came back to Montana, centering his interests on the more lucrative business of raising beef and dispensing oil.

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## The Golden Hind

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There was a Montana pilot and former Wyoming rancher who claimed to be a direct descendant of Sir Francis Drake. This cowboy with the seagoing ancestor was a stockbuyer named Urban F. Diteman. He lived in Billings in 1929 when transoceanic flights were not everyday occurrences.

Diteman learned to fly in 1928, taking instruction from Bob Johnson in Missoula and from Vern Lucas in Billings, where he purchased a low-wing Barling airplane from Grady Woodard and Bob Westover.

On October 22, with no publicity, Diteman took off from Harbor Grace, Newfoundland, on a nonstop flight to London, England. The local people at Harbor Grace said he left a note thanking them for their hospitality and advising of his London destination.<sup>(1)</sup>

When contacted by the press in Billings, Mrs. Diteman stated that she knew of the trip, which her husband had planned for months with careful preparation.

The airplane, appropriately christened the "Golden Hind" in memory of Drake's ship, was powered with a 110 hp. Warner motor and carried 165 gallons of gas for the 2,350-mile hop. This little airplane was supposed to cruise at 100 mph. and use about six gallons of gas per hour.

The U.S. Weather Bureau officials said Diteman had a good chance of making the flight if everything went well, and that there was a 50-mile tailwind over the eastern part of the route. Diteman's wife, and his parents who lived in Portland, said they had every confidence in his success.

No word or information of the flight was forthcoming by October 23rd. There was only faint hope that Diteman might be picked up by a boat along the route.<sup>(2)</sup>

On the third day, numerous witnesses reported seeing an airplane, similar in description to the Barling, land in Lake Michigan near Menominee, Michigan.

It seems that further investigation was carried out by insurance adjusters, who announced that Diteman had taken \$40,000 coverage a few weeks before the flight.

If you ever happen to see a long-wing Barling, number NX 881 H, please report your finding to the Department of Commerce!

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## Edwin Hefley

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Edwin Hefley learned to fly a long-wing Eagle Rock in Rapid City, South Dakota. He barnstormed that area, and once related to me an incident from which he suddenly gained some valuable flying experience.

He was flying the Eagle Rock at low altitude while maneuvering into position so his gunner, Tommy Matthews of the Wyoming T7 Ranch, could shoot a coyote. It seems that at the last minute before they hit the ground, the coyote had run into a badger hole. Later Matthews accused "Eddie" of trying to fly down the badger hole after the coyote.

Eddie's next job was flying on the first scheduled airline in South Dakota. He flew a Ryan Brougham for Rapid Airlines, operating on a route from Rapid City to Aberdeen.

This Dakota pilot was employed in 1929 by Tip O'Neill, an oil man of Great Falls and Cut Bank. O'Neill purchased a Wasp Stinson eight-passenger, the plushiest airplane in Montana. This Stinson was a beauty, with a cabin and the latest equipment. O'Neill commuted between Montana, California, and points in Texas, in connection with his oil production business. The airplane was destroyed in the hangar fire on the Vance airport north of Great Falls in 1930. O'Neill immediately purchased another airplane, a Wasp Bellanca. Eddie at that time was Montana's leading executive pilot. Many other pilots flew executives, but no other pilot had had the job of flying an airplane as well equipped or generously maintained.



*Bellanca airplane owned by Tip O'Neill.*

Eddie Hefley



When O'Neill sold his oil interests to an Oklahoma and Texas oil company, Eddie and the airplane went with the deal. Thus Eddie moved to Shreveport, Louisiana, where he now resides. He flew for a time out of Shreveport for the United Gas Company, which later purchased a Vultee V1A transport. The Vultee was a single-engine, low-wing airplane with a retractable landing gear, one of the first all-metal aircraft of its type. Eddie picked up a load of passengers with the Vultee in Dallas, Texas, with the intention of flying them to Houston. Notables on board included Jesse Jones, Secretary of Commerce under Roosevelt, and Mr. and Mrs. W. P. Hobby, owners of the *Washington Post*. Mrs. Hobby headed up the WACS during World War II.

Eddie related that he had just completed his takeoff from Dallas when sheets of flame shot into the cockpit. Both he and Eugene Schacher, his copilot, had to get out of the cockpit. Eddie managed to land the airplane, reaching through the flames and shoving the control wheel forward to make the landing. The copilot died the next day, and Eddie was confined to a hospital for months with burns. But he had managed to save his passengers, and received many special awards and decorations for this courageous act.

The gas company later purchased a Lockheed Electra. Eddie had a forced, but safe, landing with this airplane when he literally lost an engine in flight. The motor had dropped off.

When World War II came along, Eddie went to Detroit, where he was chief test pilot for the Ford Motor Company during the production of the B24 bombers. After the war he continued his executive flying, operating a twin-engine Beech for *The Shreveport Times*. He is now distributor for Cessna aircraft in Shreveport, and has accumulated some 19,000 hours.

Eddie is an active member of the OX5 Club and still going strong.



*Eddie Hefley and Wasp Stinson.*

Eddie Hefley

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# Mamer Airlines

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I first had occasion to meet Nick Mamer when he visited Missoula, flying in there in 1923 while on forest patrol work for the United States Forest Service.

In 1929, the interest of aviation people in Montana and in the west was focused on the endurance flight of the *Spokane Sun God*, which will be fully described later. Mamer and Art Walker had established a nonstop world's record on their flight from Spokane to San Francisco to New York to Spokane. The flight was accomplished by refueling from other aircraft, a procedure now used in military operations.

I went to Cleveland immediately after the endurance flight, to watch the air races and to take delivery on a Great Lakes airplane for our Miles City operation. Nick and Art Walker were honored guests at the races that year, and we had a good visit. It was the first time I had had a chance to talk to them since I had refueled the *Sun God* a few weeks before over Miles City.

Nick told me in Cleveland that the *Sun God* flight was a stunt to publicize the promotion of an airline from Seattle east to the Twin Cities, to be financed by a group of Spokane and Seattle people. He asked me to help promote the airline route through Montana and to go to work for him as a pilot on the airline.

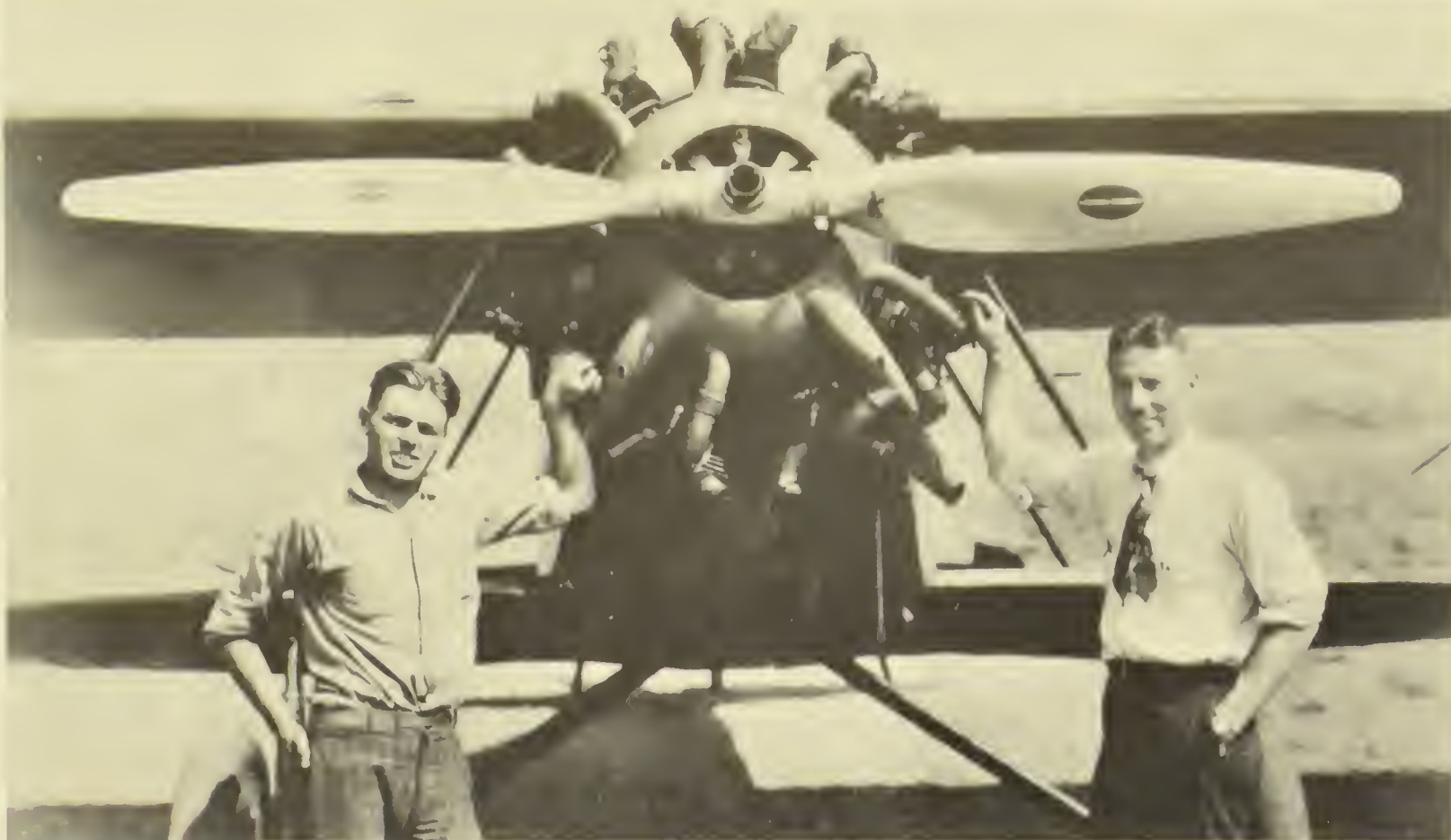
Nick came through Miles City frequently during the next few months. Immediately after accepting a position as a pilot with Mamer Airlines, I was sent to Marysville, Michigan, where I did test flying on the Wasp-powered Buhl sesquiplanes, to be used on the airline. The object was to qualify them for the certification by the aeronautics branch of the Department of Commerce. I flew several out to Spokane prior to the opening of the airline on June 1, 1930.

It was while we were setting up the operation that I began to know Nick. I could then understand how he was successful in completing the remarkable flight of the *Sun God*, an endurance flight of some 10,000 miles in five days.

I vividly remember a flight from Spokane to Minneapolis, when Nick and I flew our principle airline stockholders from Seattle over the route in one of the new Buhl aircraft. This was a six-passenger sesquiplane, powered with the new—at that time—Pratt and Whitney Wasp 400 hp. motor. This airplane was fast for its day. It had a top speed of 156 miles per hour and a cruising speed of 130 miles per hour, with the motor turning 1,950 revolutions per minute.

At that time other airlines, including United and Northwest, were holding schedules of 85 mph. with Fords, Hamiltons, Fokkers, Douglas 02's, and Stearmans. Maintenance people on these airlines were shocked when we told them we were turning out motors at 1,950 rpm., since the accepted





*Art Walker, left, and Nick Mamer with Buhl sesquiplane.*

Art Walker



*Frank Wiley and Wasp Buhl airplane.*

Frank Wiley

practice then was to turn an engine 1,550 to 1,600, lugging the motor all the time and getting perhaps 300 hours between engine changes. We accepted the Pratt and Whitney recommendation, turned our motors at 1,950, and got 400 to 500 hours out of them. We also had a schedule on the route of 130 mph.

Nick flew as we left Spokane, and right away we ran into low ceilings over Coeur d'Alene Lake. With Mullan Pass closed, Nick returned and tried Pend Oreille Lake and the Sand Point route with no better luck. Back we went to Mullan Pass, and that stubborn Dutchman pushed right up to the pass and then pulled up blind. All this was new to me, being a "see as you go" pilot. I asked him what he would do if the clouds were down on the ground on the east side. We had no weather reports or radio in those days.

Nick said he was sure it was open, and nosed down. There we were right over the highway and right in the canyon where we belonged. I thought that one over on the way to Butte.

On the landing in Missoula and on the takeoff, the Buhl, with a full load, used up all of Hale Field and didn't get out of a stall for some five miles after takeoff. We again used all the airport at Butte, and on the takeoff took twenty minutes to climb high enough to get over Pipestone Pass.

On top of the pass, and just barely, Nick thinned the mixture down too much, (neither he nor I knew much about the Wasp), and the motor back-fired and quit cold. I switched tanks with the selector valve located on the dash, and then grabbed for the wobble pump. Nick pushed the mixture control on full rich and pumped the throttle. The Wasp gave us everything it had, just in time to keep us out of those big boulders on top of the pass.

There was very little conversation between the pilots as we went in and out of Billings. When we got to Miles City, I had had all the ride I wanted. I told Nick that he could take his airplane and shove it, and that I just wasn't a good enough pilot to fly with or for him.

I told him off in very emphatic terms. He just stood there grinning. When I was through, Nick said he didn't blame me, but to think it over. He said he would pick me up on the way west after he had taken our bankers to Minneapolis. He also said that if I would fly for the airline neither he nor anyone else in the outfit would ever tell me how to fly an airplane or insist on flying if I wanted to. When he came back I was ready to go again and he insisted that I do the flying.

Individuality on the part of a pilot in those days was a major problem. Up to that time, and for some time later, I was reluctant to have anyone else fly any airplane in which I rode. You just didn't seem to have control of the situation with someone else at the controls.

Nick was the same way. I heard a story, related by an airline passenger in later years, of three passengers sitting on a fourth to hold him down while the pilot made a go-around on a missed approach on instrument into Oakland. It seems the sat-on passenger was a Spokane fellow named Nick Mamer.

Airlines today, with simulator crew training and standard procedures, have overcome much of this prejudice. There is nothing I like better than



to be a guest in the cockpit of a 707 and see the copilot do all the flying, the pilot showing that he recognizes the ability of the man on the right to do as good a job as he can, and maybe better.

Nick was a critical operations chief, and he really gave some of our pilots a bad time. But he never criticized my flying or insisted on flying when we rode together.

Mamer Airlines got under way with a trip one way each day, with Ford Trimotors operating west from Spokane and the Buhls east to the Twin Cities. My regular run was east from Miles City with scheduled stops at Aberdeen, South Dakota, Minneapolis and St. Paul, returning the next day.

We frequently had equipment and crew tieups, and the pilots would fly the whole run from St. Paul to Spokane. With good luck, it was a long haul of twelve hours. The Buhls, although fast, were unstable and heavy on the stick control.

Tom Strickler, a Minnesota National Guard pilot, was my alternate on the run east. We both based in Miles City, and Tom used to complete a lot of schedules by flying on top. He missed a letdown by about 150 miles one day, and spun in near Mott, North Dakota. You just couldn't outguess the weather with no radio and the only weather reports a day old, or by telegraph operators along the Milwaukee Road. Another stopper on top was the cumulus cloud buildup sticking through the stratus.

We did have an excellent schedule record and usually had a full load of passengers, picking up westbound passengers from St. Paul off the early morning trains from Chicago. We had them in Spokane that night, saving them two days' time. Trains weren't so fast in those days, either, and they spent a whole day just getting through Montana.

We had a good bunch of pilots with Lonny Brennan, Ralph Daniels, Vern Bookwalter and Art Walker on the west end with the Fords. On the runs east from Spokane were George Hallet, Newt Wakefield, Jack Sharpnek, Tom Strickler and myself.

Nick Mamer frequently filled in, and Wakefield became operations chief. Art Walker headed up the maintenance and flew frequently on the Fords. In between runs, we barnstormed with all the airplanes at fairs and other crowd-gathering celebrations.

As our operation matured, Wakefield, being an ex-Navy man, got us all into navy blues for airline uniforms — that is, all of us except Lonny Brennan and Vern Bookwalter, who weren't about to dress up like a "bunch of clowns", as they dubbed the rest of us. They did have a point, which I realized, when a lady handed me her bag on the elevator in the Lowry Hotel in St. Paul, instructing me to put it in a taxi. I did, and accepted the ten-cent tip.

All our operations weren't dull, and I had one diversion which was fun while it lasted. Sometimes I'd pull out of Miles City east before daylight, and would be coming down the Knife River into Mobridge about the time the sun came up. On the reservation west of Mobridge were some Indian villages with wickiups and teepees. I would throttle the motor back and glide down over these sleepy towns, then give the Wasp full power and

watch back over my shoulder as the population explosion took place. The Indian folks soon caught on, and soon I had regular spectators who were on deck to wave at the scheduled time.

Another early-morning spectacular we and the passengers enjoyed was flying over the Minnesota Lakes as the sun came up, and watching the fishermen in the boats hold up their catches for us to see. Such fringe benefits were standard procedure.

I remember my disgust in 1929 when Harlan Scott, the Miles City manager from the Montana-Dakota Power Company and I talked the president of his company into taking an airplane ride on Northwest between St. Paul and Chicago. If he liked it, I had a 6,000 Travel Air sold and a job flying it.

Old "Speed" Holman, chief for Northwest, was bored with the world that day and tried to chase a passenger train off the track to wave at some ground-loving friend of his on the train. Montana-Dakota Power never did buy an airplane that I know of — not while they had that president.

We frequently came into St. Paul late at night, and the only beacon on the route was on the Foshay Tower in Minneapolis. One smoky night I lined up with a lighted runway at St. Paul and when I turned on my landing lights I was looking right at the smokestack on the Great Northern roundhouse. I lifted my wing over the stack and made a mental note of this unlighted obstruction, right in line with the runway. They never did get that stack lighted while I was on the run.

Another time I ran out of ground lights east of Mobridge and into instrument weather. Doing a 180, I came back and turned on my landing lights which shone down when retracted. I could see ground fog. I kept retracing my route until I saw a lighted town and, a few miles west of it, an eastbound passenger train all lighted up. I picked a stubble field and landed in mud from a heavy rainstorm.

A farmer came out with a Model T truck and hauled my five passengers into town, getting there just in time to put them on the train. These passengers were entitled to, and got, a part refund of their fare.

Ralph Sharpnek was a reserve pilot who had flown a Fairchild airplane for Vico Oil Company. He had been sick with what was diagnosed as sleeping sickness. Nick, being short of pilots, had called him to take a run out. I was due out of Miles City east on this run, when the ship didn't show up. I phoned Spokane and we had some anxious moments, thinking Ralph had gone to sleep up there.

Ralph showed up about four hours late. He had been lost. It seems he had never been east of Butte and wandered down into Idaho and then returned, refueling at Livingston. I took Ralph on east with me to show him the route, and as we were flying along over the flat country of South Dakota, he pointed to a Holstein cow and said in his dry way, "I suppose you tell where you are going by that spotted cow." I agreed.

Another pilot who got confused was Lonny Brennan. He was overdue on his first trip east, and someone had taken the road maps out of their pouch by the pilot's seat. Lonny came along to Miles City about dark with



no passengers. Seems he turned up the Yellowstone River at Livingston, gave his passengers a tour of Yellowstone Park, and then landed them in a wheat field at Ashton, Idaho, out of gas. He couldn't get off with that load at that elevation in the available distance for takeoff, so he unloaded the passengers and baggage, gassed up, said goodbye, and took off empty. I have often wondered how long it took those people to get where they had hoped they were going.

I got good and confused one time, taking in a J6 Ford a full load of passengers from Spokane to Lewiston, Idaho for a cherry festival. I had maps and wanted to show Nick I really knew what I was doing. He was visiting in the back. As I flew along I could see the Clearwater River and the town of Lewiston on the map, but I saw nothing but wheat fields. I was really relieved when I popped over the hill and spotted Lewiston and the river below.

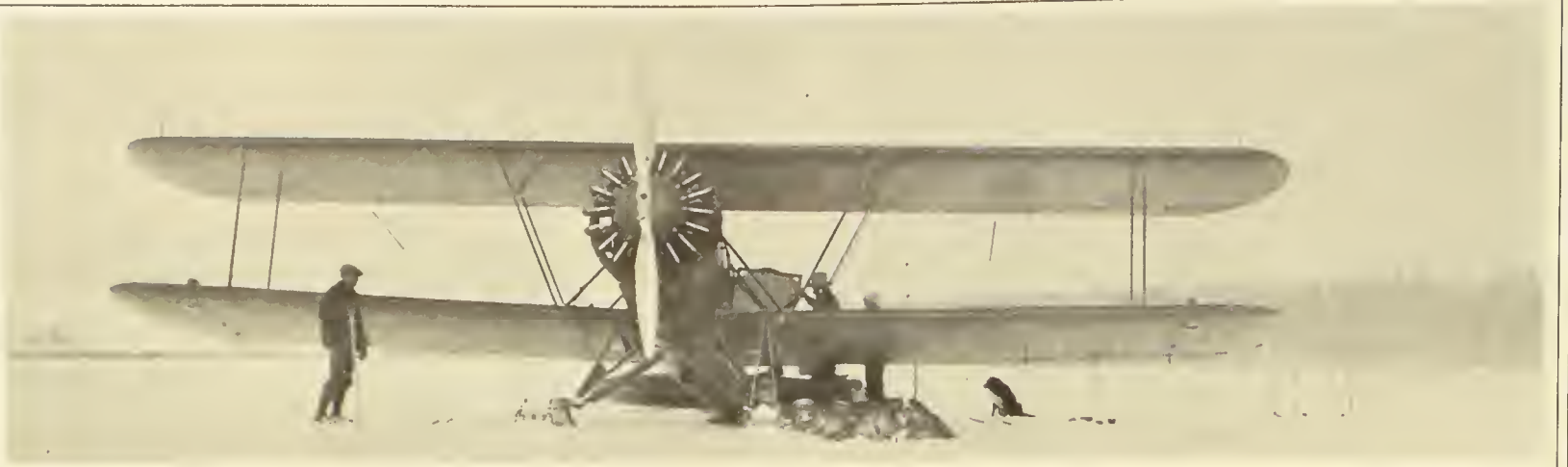
Newt Wakefield was always giving us a bad time if we let weather delay us. He was probably a better bad weather pilot than most of us. He left Missoula one night after dark with weather building up, heading into the Spokane area. One of his passengers was our traffic manager, a former railroad man named Fugcy, who was also harping about schedules. Fugcy wasn't popular with us, because he was always running out and handing us orders, just like we used to see the station agent do to the engineer on the railroad.

Newt got trapped around Superior and wound up on top. Continuing on his course he saw lights through a hole, dove down through the hole and then, to his horror, realized he was over Mullan, Idaho. As you may know, Mullan sits in a canyon with mountains on three sides. Where that fourth side was, Newt didn't know, so he cut everything, turned on his lights, and stalled into a ball park. He wouldn't have made that except that the old Buhl flew through some power lines which slowed it down before it hit the ground. Nobody was hurt much, but the ship was a total loss, and both Newt and Fugcy were short a few teeth.

That incident cleared the air up and the pressure was off. Newt sent us each a personal letter, and we all admired him for it. He wrote that he had no excuse for the predicament in which he found himself and that he would henceforth be listening and not telling the rest of us how to fly. He did a good job later and in World War II for the Navy, and is still playing golf somewhere around Coeur d'Alene.

Mamer Airlines was trying, with several other airlines, to meet the "grandfather clause" in the route experience requirements of the Post Office Department. Applications were submitted for carrying mail, but the contracts just couldn't seem to be lined up. Too many new airlines were having the same experience, and a Congressional investigation resulted in the cancellation of all air mail contracts.

It seems that the existing contract airlines had pooled their influence in Washington to out lobby the potential competition from embryo would be Air Mail Carriers. A situation not unlike the competing trunk and local service carriers today.



*40B Boeing Winter Operation, West Yellowstone.*

F. H. Christensen



*Fokker Super Universal.*

F. H. Christensen



*J5 Stearman airplane.*

F. H. Christensen



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# National Parks Airways

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In 1930, National Parks Airways, running from Salt Lake to Great Falls, had been in operation about two years. They had a good operation with excellent safety and completed schedule records. They operated Stearmans, a two-cockpit, open biplane powered with a Wright, 225 hp. radial engine, and super-universal Fokkers, a six- or eight-passenger, high-wing monoplane, powered with a Wasp 400 hp. motor.

National Parks was awarded a mail contract in 1928, and was organized by a group of businessmen from points all along the route. The organization was headed by Al Franks of Salt Lake. The first meeting was held in Idaho Falls. The city of Butte, because of its central location and local backers, was selected as headquarters for the operation.

The operation staff included: Felix "Chief" Steinle, an experienced man who had directed operations for Western Airlines on the Salt Lake end of their Los Angeles run; Art Stephenson as chief pilot; Bill Ferguson as traffic manager; and a staff of pilots, including Ray Elsmore of Salt Lake; Earl Vanece of Great Falls; Hank Hollenbeck of Idaho; Ken Maynard of Los Angeles and Ralph Fry of Pocatello. Another California pilot named Wheatley was also on the staff. He stalled in with a Fokker at Pocatello,



*Boeing 80A, used by National Park Airways for local flights at West Yellowstone.*

F. H. Christensen



*Super Universal Fokker airplane.*

F. H. Christensen



*40B Boeing airplane used by National Parks Airways.*

F. H. Christensen

killing himself and several company employees as the operation was being set up.

National Parks from then on had a perfect safety record and maintained one of the best schedules in the industry. This was primarily due to the efficiency of the operations manager, Chief Steinle, and the know-how of the pilots. And partially responsible was the route location, which paralleled the movement of weather fronts in the area rather than cutting through one weather structure after another.

The Chief insisted on the best of maintenance, the best of personnel, and the best of equipment. He was a tough old taskmaster, and fired everybody at least once just to keep them on their toes.

Ray Ellinghouse of Sheridan, Montana, came up through the ranks to a pilot position; Stan Cavill of Harlowton and Bert Mooney of Butte both started as copilots for National Parks when they got into 247 Boeings.

Another pilot, "Nelly" Nelson of Salt Lake, became a former National Parks pilot when he and Chuck Metcalf, his copilot from Butte, forgot to put their wheels down at Helena on Metcalf's first run. I asked Chuck what Nelly said, and he stated that Nelly looked over at him after they had come to a grinding halt and said, "That sure makes a lot of dust."

Ken Turner also put in a lot of flying with National Parks, and two brothers, Carl and Russell Lund, got their starts as copilots on this airline.

I was a reserve pilot for National Parks. Every so often I would have





247 Boeing.

F. H. Christensen

to go up to Butte and ride the route, landing at each airport and each emergency field to keep qualified. This piecemeal existence didn't seem attractive, so I migrated to California where I could keep flying.

The Army tried to fly the mail after the cancellation. The false economy imposed on our Army Air Corps by Congress was reflected in the sad state of our military pilot proficiency. They lost most of their airplanes and killed 18 pilots in winter flying.

National Parks showed up well in the investigation of the air mail scandal, with no evidence of conniving to keep other airlines from operating. They were the first and only airline to get their new air mail contracts back with the same organization and officials. All other airlines with air mail contracts had to reorganize and get a new staff of top-level personnel.

This did improve the air route and airline picture for some time to come, until the airline picture became so complex that the Civil Aeronautics Board was created to set standards and requirements for the control of public air carriers of all categories.

National Parks Airways, Montana's first scheduled air mail contract airline, with an excellent operation record, sold out to Western Airlines in 1937.

Western Airlines operates today in and through Montana — from Denver to Billings, Great Falls, and Calgary, Alberta, and from Salt Lake to Yellowstone Park, Butte, Helena and Great Falls.



(Spokane Sun God)

Art Walker

## The Spokane Sun God

“Nick” Mamer of Spokane promoted a nonstop flight which, in 1929, established a world’s distance record of long duration. Mamer was ably supported by the air-minded citizens of Spokane. One objective of the flight was to generate interest in a northern airline route. The increased public awareness of the unlimited utility of air travel was well demonstrated in the enthusiasm shown by the community of Spokane in sponsoring this long-distance flight by their locally distinguished pilots, Nicholas B. Mamer and Arthur Walker.

Under the leadership of Victor Dessert, the Spokane National Air Derby Association furnished the funds and did the planning for a proposed, nonstop, round-trip flight from Spokane, to San Francisco, to New York, and back to Spokane.

Nick Mamer gave technical assistance to committee members who had ably planned and directed the National Air Races in Spokane in 1927. This same committee did a flawless job of planning the *Spokane Sun God* flight.

The proposed flight began to shape up in the early summer of 1929, with material assistance furnished by the Texaco Oil Company and the Standard Oil Company. The Buhl Aircraft Company of Michigan gave further support in the building of a special, single-engine airplane of sesquiplane design, powered with a Wright J6 300 hp. engine. Both the Buhl Company and the Wright Company drew on their backgrounds of experience to give all possible assurance of success by producing a dependable airplane and engine.

The route selected by the committee was from Spokane through Oregon and down the coast to San Francisco, then via Salt Lake, Cheyenne, Omaha, Chicago and Cleveland to New York City, returning to Spokane via



Cleveland and Chicago, and then over the uncharted northern route through St. Paul and Minneapolis, Aberdeen, Miles City, Billings, Butte, Missoula and Spokane.

Spokane businessmen contributed an additional \$10,000 to the project. The target date for the flight was set for mid-August, 1929. The Texas Oil Company arranged for fueling at San Francisco, Cleveland and New York. Art Walker, the other Spokane pilot and airplane mechanic of recognized ability, was picked to accompany Nick Mamer on the flight.

The refueling crews included a Buhl factory pilot, R. M. Wilson, and an old barnstormer, Vern Bookwalter. Wilson flew a Buhl Air Sedan, and Bookwalter piloted a Ryan Brougham. Nick Mamer furnished the Ryan, and Sam Wilson, a local mining man, loaned his new Buhl Air Sedan for refueling.

The airplane used for the endurance flight was christened the *Spokane Sun God*. Flown by Wilson, it arrived in Spokane from the factory at Marysville, Michigan, about August 10.

The air committee finalized their coordination of timing, route service and publicity, with subcommittee meetings on logistics, weather and publicity. The whole project was thoroughly planned in detail, the committee having had previous experience in their administration of the National Air Races in Spokane in 1927. Mamer and Walker were given authority for final decision on any matters of controversy.

The *Spokane Sun God* was a sesquiplane or semi-biplane, with an upper wing of long span and a stubby, tapered lower wing designed to give added strength to the main wing and support the unusually strong landing gear, built for heavy loads and rough field operation.

The ship was basically designed to carry six people, with a 300 hp. Wright J6 motor. As modified for the flight, it provided room for the two pilots. Tanks in the fuselage and wings carried 300 gallons of gasoline, enough for a range of about 1,800 miles, or 18 hours' flying.

Manually-operated pumps were used to transfer fuel to the tanks in the fuselage, with filler caps accessible in flight. A circular opening was provided in the top of the fuselage, through which a refueling hose could be inserted in the filler caps of the cabin tanks. The fuel could be transferred to the wing tanks as desired.

Refueling was to be accomplished by lowering a hose from the refueling plane while flying over the *Sun God*. The nozzle of the hose could be handled by Mamer or Walker. The gas flowed by gravity into the tanks, while the two aircraft flew piggyback formation.

The refueling aircraft were scheduled to contact the *Sun God* at pre-determined points, the first contact to take place over the Dunbarton Bridge at San Francisco by a Texaco airplane. The two Spokane refueling aircraft followed, operating by leap-frog technique, from Rock Springs east to Chicago. Texaco furnished the refueling planes in Cleveland and New York. The two Spokane aircraft then again took over, rendezvousing with the *Sun God* at points west from the Twin Cities.

The success of this project can be attributed to the very thorough plan-



*Art Walker, Sun God copilot and mechanic.*

Art Walker



*The Spokane Sun God, refueling aircraft, and crews.*

Art Walker



ning of the flight committee, and the fact that the whole city of Spokane was behind the venture. This, together with the tenacity of the two pilots, resulted in the establishment of a record not matched for many years.

National attention was focused on the flight and on Spokane, with coverage releases of publicity through several channels out of the city. During the flight Mamer gave running accounts in press releases dropped from the airplane. This was before the time of established air-to-ground radio communication.

The whole city of Spokane turned out on the afternoon of August 15 to see Mamer and Walker take off at 6:00 p.m., pointing the nose of the *Sun God* for San Francisco.

A refueling contact was made over Mills Field, San Francisco, at 5:25 the next morning. The *Sun God* had arrived two hours earlier and circled San Francisco until daylight. Fueling was completed at 7:30 a.m., and the plane headed east to Salt Lake and Cheyenne, bucking head winds instead of the anticipated tail wind normal with prevailing westerlies.

The aircraft requested an emergency night refueling at Rock Springs. This was accomplished with unforeseen difficulties because of the limited load of gas that could be carried at that altitude by the refueling aircraft.

When interviewed, Walker stated that the Rock Springs refueling was really a hairy operation, the *Sun God* flying at 8,000 feet elevation and the refueling airplane unable to get off with very much payload. He said the flashlight taped to the nozzle of the refueling hose was difficult to distinguish from the stars, and he oriented on the refueling plane by the flames of the exhaust.<sup>(1)</sup>

During the refueling over Rock Springs, the hose was cut by the propeller of the *Sun God*. This delayed the contact while the hose was repaired by the refueling crew. Walker related he was standing up half outside the airplane in the hatch on the fuselage, pushing up on the belly of the refueling craft to keep the planes apart, while he shoved the nozzle in the filling cap of a tank in the cabin.

Walker said the hose man of the refueling ship, Alphonse Cappula of Spokane, was guiding the pilot by rapping him on the shoulder with a gas-measuring stick. The refueling pilot had all he could do to hold his plane up at 8,000 feet with the overload condition and the rough, gusty air.

The refueling was accomplished at Cheyenne by daylight, and they then proceeded east. The Robbins brothers of St. Louis refueled the *Sun God* at Cleveland and New York with Challenger Robin airplanes. Another problem encountered at Rock Springs involved a broken fuel line in the *Sun God* which had to be repaired in flight. This was accomplished with about ten gallons of gasoline remaining in the tanks at the time the next contact was made with the night refueling plane. This was a close call, but they made it.

The flight continued east. A group of about 100 planes met the *Sun God*, leading Mamer and Walker into New York, where it took over an hour to find the airport through the heavy traffic of well-meaning, welcoming aircraft. It may be remembered that they had no radio and no FAA facilities. Their low frequency receiver had expired shortly after their takeoff in Spokane.

The endurance plane arrived over Roosevelt Field in New York at 3:45 p.m. on the 18th, having been in the air for 66 hours and 47 minutes and covering 3,600 miles. Mamer and Walker hovered over the New York area for two hours while taking on fuel and food.

The *Spokane Sun God* was paced west out of New York by Frank Hawks, the well-known Texas Oil Company pilot. Hawks escorted her through questionable weather to Belfont, Pennsylvania. By a message system, a pre-arranged signal had been agreed upon, whereby the Belfont airport manager would flash the floodlights on the field—once if the weather was O.K., twice if questionable, and three times if bad.

It was evident that the British were coming, as the lights were flashed three times, and the *Sun God* approached Belfont with a low ceiling. Mamer circled the town, flying a triangular course from the town to an airway beacon to the airport. He had to revise his holding pattern to circle the beacon and the town when the ceiling dropped to 200 feet.

They made it into Cleveland where the Robbins brothers again refueled them. Proceeding to Minneapolis, they caught Bookwalter on the ground with the Ryan, repairing a broken brake cable. Walker dropped a note to him, and he followed the *Sun God* west, refueling as they went between Minneapolis and Aberdeen, South Dakota.

The *Sun God* was again refueled at Aberdeen by Neil O'Connell and Bookwalter, and departed from there to Miles City, Montana. They arrived at 9:50 p.m., having encountered intense smoke conditions from forest fires, and with the Wright engine beginning to show signs of fatigue.<sup>(2)</sup>

Walker said that in circling Miles City all night they were down to two inches of gas in the main fuselage tank when I refueled them at daylight.

I was then operating a flying service out of Miles City and acting in the dual capacity of flight operator and airport manager. We in Miles City had



*Bookwalter and O'Connell, and Ryan refueling airplane.*

Art Walker



followed the *Sun God* flight with keen interest and, at the request of Spokane, had a runway lighted with rows of high octane lights consisting of tin cans stuffed with rags, soaked in gasoline, and then lighted.

The local airport board, led by Chairman Buek Winter, were all up at the airport, located at the present site on Lansing Flat, north of the city. A big crowd of people from town arrived to see the *Sun God* fly over, and our one telephone was chattering with inquiries and reports on the then-overdue airplane.

About 10:00 p.m. we could hear the *Sun God* eircling overhead, but couldn't see it because of the smoke and the fact that its navigational lights had given up a couple of nights before.

The first indication we had that the plane had arrived was when a flashlight came tumbling out of the sky, looking like a falling star. We retrieved the flashlight on the field. Attached to it was a note from Niek, saying he and Art were about to give up. The visibility was zero because of the smoke, and the Whirlwind (Wright engine) was operating on only one magneto. If we could figure out some way to refuel them, it was requested that we build a fire in the middle of the airport. They would circle the field and try to stay up until they ran out of gas or we had them refueled.

We discussed the problem and, with nothing to lose, immediately took a fifty-gallon drum out on the field and built a big fire in it. Then we got busy. We put our airport board and our student pilots to work, assigning tasks to designated groups. Those boys really jumped in and did a job.

People who participated in the refueling project included: Buek Winter, chairman of the airport board; Osear Ball and J. P. Johnson, local businessmen; Roy Milligan, Jack Hotaling and Cliff White, who were taking flight training; Bill McFarland, a meehanie and Tommy Matthews, a cowboy who owned one of our airplanes.

One group proeured five-gallon cream eans by night requisition from the local creamery; another group made rope slings with detaehable let-down ropes, using regular throw ropes and harness snaps from the Furstnow Saddle Shop. Another committee, including wives, prepared food for all hands, including the crew of the *Sun God*. The result was that we were ready to go with the refueling at 3:30 on the morning of the 20th.

At Mamer's request, via dropped note, we contaeted R. L. Wilson, his refueler at Missoula, and instrueted him to fly cast to Belgrade to be ready to refuel the *Sun God* there. Our eowboy friend, and my financial advisor at the time, was Tommy Matthews of the T7 Ranch of Gillette, Wyoming. Tommy was both well- and high-heeled, and a handy boy with a rope. We were operating a brand-new J5 Eagle Roek airplane of which we were justifiably proud, and this we used to refuel the *Sun God*.

Tommy was tied in the front cockpit with a telephone lineman's belt, the cockpit loaded with five-gallon cream eans filled with Standard Oil Company gasoline.

As daylight broke, we could see the *Sun God* eircling overhead in the smoke. We took off with forty gallons of gas in the cream cans, flying up and over the *Sun God* to look the situation over. I could see a broken wind-

shield with a rag stuffed in it. Indeed, the oil-streaked old *Sun God* looked as if it had really had a rough time. There was a manhole in the top of the fuselage behind the wing and as Art Walker's head and arms popped out, he looked for all the world like a prairie dog in helmet and goggles.

Tommy took a dally around a strut in the center section with a throw rope, snapped on a sling holding a can of gas, and lowered away, hanging half out of the cockpit. I maneuvered into position and let down on the *Sun God*. We placed the milk can right on the fuselage behind the manhole, where Art unsnapped the sling and lowered the can inside.

By the time he was back we had another can in place, and after delivering the first load we returned to the field for another. We had made the first delivery in about 25 minutes' flying time. We made the second delivery in better time, and a note from Art advised us a third load would be enough.

Our navigation in the limited visibility was a problem, so Nick flew the *Sun God* on a northwesterly course while transferring fuel. We then turned south with both aircraft until we found the Yellowstone River. Now we could fly downstream to the bridge at Miles City, adjacent to the airport.

The large supply of milk cans really impressed one old farmer, who came up while we were loading. He asked how we got those cans back. I told him we had a boy with a rowboat down by the bridge, and that the *Sun God* crew dropped the cans in the river after they were emptied. The boy picked up the cans as they floated by and returned them to us. The farmer thought that was pretty ingenious, and so did I. (Incidentally, sheepherders were picking up rusty milk cans for several years afterwards in the Sunday Creek area.)

Nick and Art gave us a goodbye wave after the third load, and headed for points west. The *Sun God* refueled at Belgrade, arriving there at about 8:30 in the morning followed by the refueling airplane. Mamer and Walker flew on to Butte. Here they decided to continue to Missoula, arriving about 11:00 a.m. After circling the city for some time in the dense smoke, the *Sun God* headed west and was contacted by the refueling ship over the Missoula sugar beet factory. They took on fifty gallons of gas, enough for the final leg into Spokane. They also took on a quantity of oil, and six chicken sandwiches, furnished by a Missoula cafe.

In the meantime, Bob Johnson of Missoula was doing a land-office business hauling sightseers up alongside the *Sun God* and the refueling airplane, for five bucks a head. When he first arrived over the city, Nick dropped a note in which he said "Hello, Missoula. We are sure glad to be this close to home. This is God's country again. We will pull off a little and refuel just as soon as our boys show up with our refueling airplane. Here he is now. Hello to Harry Bell, Bob Johnson, and everybody. Nick."<sup>(3)</sup>

Both the *Sun God* and the refueling plane bore the Texaco star on the fuselage and wing tips. The *Sun God* was painted a brilliant red with the words, SPOKANE SUN GOD in white letters on the side.

The *Sun God* continued on over the Bitterroots and departed from Montana over Mullan Pass. It arrived over Spokane at 2:00 p.m. on August



20, 1929, after five days of continuous flight. Nick circled Spokane, was twice refueled, and took on food and clean clothes for himself and Art. They in turn got all dressed up for a triumphant arrival.

They circled over the city for four hours while Lon Brennan and Ralph Daniels flew both Ford Trimotors with load after load of passengers to get a close view of the *Sun God* from alongside at \$5 a head. Nick, being a practical businessman, wasn't about to land with all that money rolling in, even if he had been in the air for five days and nights. What a character!

Spokane turned out *en masse* to witness the finish of this history-making flight. A welcoming address was given by Charles Fleming, a city commissioner who was also airport manager. Harry Wright of the Davenport Hotel prepared a suitcase dinner for Nick and Art, including chicken, tomato and lettuce sandwiches, watermelon, ice cream, cookies and coffee. This dinner was lowered to them, together with their clean laundry.

In arriving over Spokane, the *Sun God* crew became holders of one Fédération Aéronautique Internationale, world's record for the longest non-stop flight ever made. It was coincidental in these days of endurance flights, that at the time Mamer and Walker were making this flight, the Graf Zeppelin was en route from Friedrichshafen to Tokyo via Russia, carrying 20 passengers, a crew of 40, and 50,000 pieces of mail.<sup>(4)</sup>

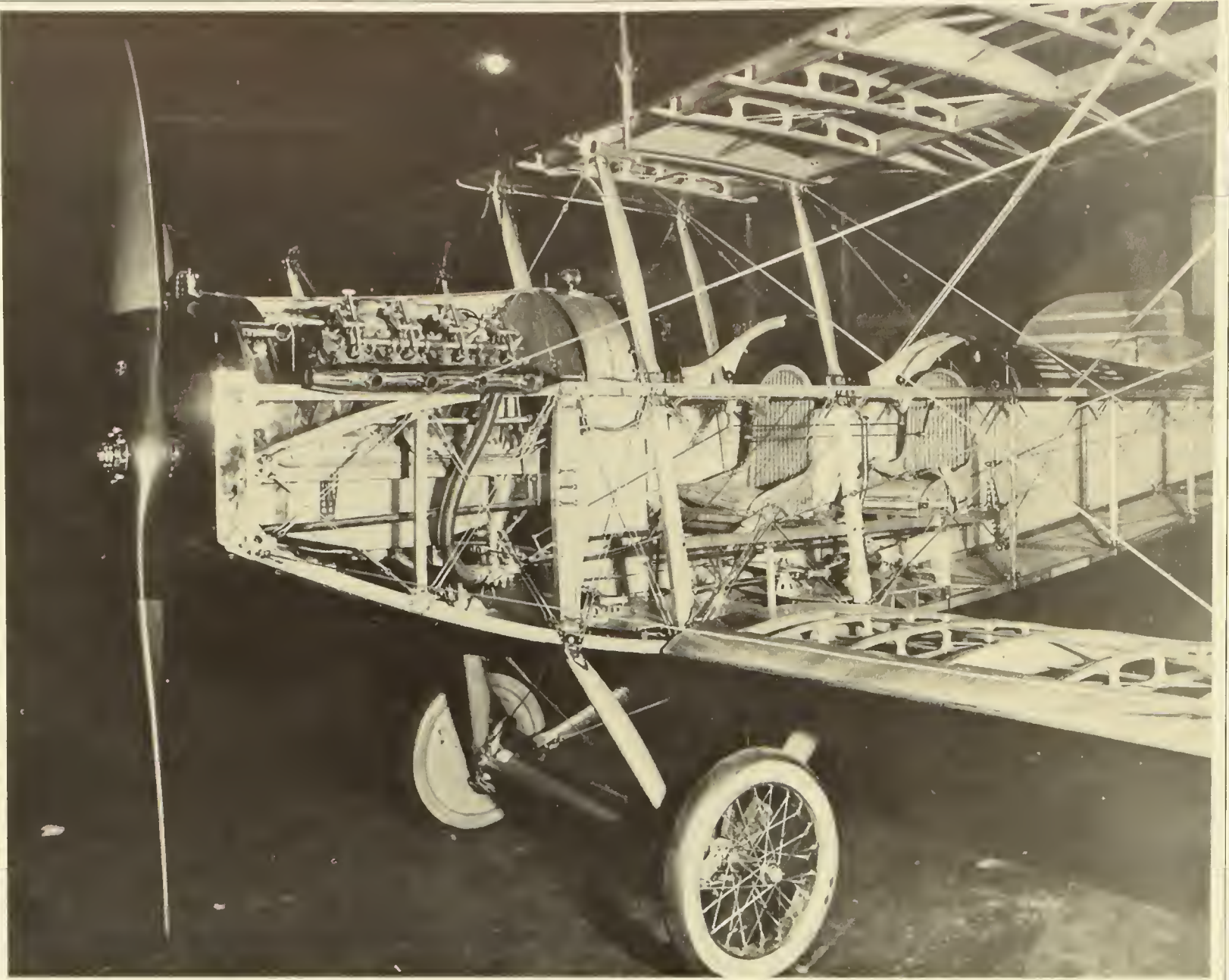
At the same time, a Swiss team in a French-built monoplane were long overdue in an east-west Atlantic crossing from Lisbon to New York. The Graf Zeppelin established a 6,000-mile record nonstop flight, was broken within a few hours by the *Sun God* completing the first transcontinental, roundtrip, nonstop, refueling-in-air flight.<sup>(5)</sup>

This amazing record-breaking flight was completed when the Spokane Air Derby committee ordered the crew to land at 6:00 p.m. A record of 120 hours in the air, covering a lineal distance of 7,200 miles and a total distance of 10,000 air miles was established. These figures were recorded and verified by the official FAI checker, and supported by the tape contained in the sealed barograph carried on the flight.

Congratulatory messages from all over the world poured in, including a telegram from President Hoover: "Congratulations on the successful completion of your nonstop, refueling flight across the continent and return. This is a further demonstration of the ever-widening scope and practical utility of aircraft."

The first question asked Nick at the reviewing stand was, "How did you get that watermelon down a refueling hose?"

The welcoming committee on the platform at Felts Field, Spokane, included Charles Hibbard of the Air Derby Association, Harry Wright, Mrs. N. B. Mamer, Mrs. Vernon Bookwalter, Mrs. Al Cappula, Phil J. Garnett, H. W. Pierong, James A. Ford, secretary of the Air Derby Association, Harry Heylman, Albion Rogers, John W. Graham, Guy Toombes, R. Insinger, and R. L. Rutter. And there were many others, all of whom had given support to the venture. They had succeeded in bringing public attention to the practicality of a northern air mail route through the Northwest to Spokane, and through Montana.



*Cut-away model of OX5 Jenny, which had the same top speed as a Montana jackrabbit.*

Mrs. Ed Duebler





# *Supplement*

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## Hub Ames

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One of Montana's seasoned pilots is Hub Ames of Scobey. Hub came to Montana from Minnesota at an early age. His father operated wheat farming activities and a flour mill in Scobey, a small prairie town in north-eastern Montana.

Hub followed the conventional pattern by graduating from high school in Scobey, then Carleton College of Northfield, Minnesota, where he married his college sweetheart. He returned to Scobey to take over his father's milling business. He lived there happily ever after with his wife, and two sons to carry on the family name.

The sequence was interrupted in 1929 when Hub, with his two sons, was traveling on Northwestern Airlines. The huge (at that time) Ford Trimotor took off to the north at Holman Field in St. Paul. As the airplane climbed toward the high bluffs, all three engines gave up at once for lack of fuel.

The Trimotor built a new street on the Indian Mounds, with the result that Ames and one of his boys were seriously injured. They recovered, fortunately, but Hub also received a very material settlement from the insurance company which carried the liability for the airline.

Being fairminded, and recognizing that he had received some substantial contribution from the aviation industry, Hub decided to reinvest his unexpected gain into aviation. He took a flying course with Paul Mantz, at Burbank, California. His instructor was Burleigh Putnam, now a top



*Low-wing Kinner airplane.*



hand with the FAA, who then came to Montana and flew a low-wing Kinner for Ames at Scobey.

Hub Ames continued flying, and with Putnam and myself, operated a flying service at Glasgow during the time the giant Fort Peck dam was being constructed in the 1930s.

Ames joined the Air Force in World War II. He was a pilot with the ferry command out of Long Beach, where he had an assignment as an instrument check pilot.

Ames now operates a Beech Bonanza at Scobey, going anywhere, anytime, and on the gauges, doing charter flying together with other business operations in that eastern Montana community.

Hub, and Win, his wife, are now grandparents, and are very active in community and Legion affairs.

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## Do-It-Yourself Airplanes

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The momentum of interest in aviation accelerated extensively throughout the country immediately following World War I. A lethal hobby, participated in by aviation enthusiasts, young and old, included the building of many homemade airplanes.

Montana was no exception in this interest. Prospective aviators from various places throughout the state gave material expression to their aviation ingenuity by building, or attempting to build, flyable airplanes. These included two brothers, Jack and Henry Lay of Helena. They built two planes, one powered with an OX5 engine and one with a rotary engine.

Ed Bogut of Havre, at the age of 18 years, built his own airplane in 1930. He later went on to become an excellent pilot, serving in the ferry command during World War II. Ed later owned a twin-engine airplane, which he used in operating a chain of automobile accessory stores throughout the state.

One of the first amateur airplane builders before World War I was a local character in Miles City named "Beany" Auld. Beany had a reputation as a reckless motorcycle rider, the speed of which was somewhat limited by the belt drive and the fact the engine had only one cylinder.

Beany built a glider, and flew it from the Camel's Hump, which many oldtimers remember as a gumbo butt between Tongue River and Fort Keogh. His next step was to construct a powered airplane, built in the basement of the Dodge garage on Fort Street. Power was furnished by a converted automobile engine with a wooden propeller attached to the crankshaft.

A contributing mechanical defect in this machine was the fact that the propeller wouldn't clear the floor when the engine was running.

When Beany started up the motor, everything got out of control. One

of Sol Herron's favorite stories was how the contraption had Beany cornered in the basement, having got between him and the door. Beany was kept busy dodging the machine as it beat itself into irreparable wreckage while chasing him around the room. This misfortune ended the flying career of an aspiring aviator.

Several airplanes were built in the state from kits furnished by manufacturers. Two of these exaggerated model airplane manufacturers were the Heath Company of Chicago, the manufacturers of a kit for an airplane known as the Heath Parasol. Another manufacturer produced a kit for the construction of a craft known as the Petenpole. Both were powered with 4-cylinder Henderson motorcycle engines.

A rancher in the vicinity of Broadview built a homemade airplane. A blacksmith in the town named Roy Grupe was a typical, self-made pilot, building an airplane powered with a Model T Ford engine. Another rancher south of Roundup built a swept-back-wing plane of unusual design, powered with a radial engine. It was test flown by Stan Cavill, who said it had excellent stability and performance.

A typical airplane builder was Charles M. Petrie, now a telegrapher for the Great Northern Railway at Kremlin, Montana. Petrie was a skilled mechanic. He and Mrs. Petrie put in many pleasant and rewarding hours constructing his airplane from a Heath kit purchased in Chicago. Petrie took a few hours' flight instruction from Bob Jellison, who had been a Canadian pilot in World War I. Petrie did an excellent job of building the Heath monoplane, and it looked like a factory-built job when he finished it.

Petrie's craft had a 25-foot wing span with a 4-foot chord, and was 17



*Heath Parasol Airplane and Charlie Petrie.*

Charlie Petrie



feet in length. It was powered with a 27 hp. Henderson motorcycle engine, with a top speed of 70 miles per hour. It weighed only 315 pounds. When the little craft was finished it was christened the *Isabel Petrie*, with appropriate ceremony, and was exhibited at the county fair in Havre.

Petrie test flew his plane himself — and made his first solo flight at the same time. The test flight was a gradual, progressive operation, in which the pilot-builder taxied the airplane on the ground many times until he had the feel. The next step was a series of short hops, followed by longer flights until he was able to circle the field.

The first cross-country trip with the *Isabel Petrie* was from Havre to Kremlin. When Petrie landed at Kremlin he wiped out the landing gear and a wing tip. In relating the progress of his flying and the building of his plane, Petrie said he had paid \$250 for the kit and \$250 for the motor and propeller. In the bargain, he became quite proficient in his do-it-yourself flying course.

Interest in flying evidently runs in the Petrie family. His boy, Jack, who learned to fly on a civil pilot training program preceding World War II, went on to fly for the Navy. He is now airport manager of Payne Field, north of Seattle. Petrie's daughter married "Red" Arnold Sorenson, a flying rancher, and lives south of Kremlin. Both Mr. and Mrs. Sorenson are active in the state organization of the Flying Farmers and Ranchers Association, he having been state president of the group, and she, the state queen.

Charlie Petrie continues to fly with his son-in-law, and with some 35 years of flying as a hobby, it still serves as relaxation from the confining duties of his position as the Kremlin station agent for the Great Northern Railway.



*Heath Parasol and Henderson Motor.*

Charlie Petrie

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# Horace H. "Shorty" Koessler

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Horace H. Koessler lives in Missoula. He has extensive lumbering interests, including both logging and mill operations. Koessler is a flying businessman. The versatility of his activities is apparent in his unusual background, both in business and in aviation.

Koessler was raised on a ranch "up the Swan," in the Holland lake area and the Blackfoot country. His father was a prominent surgeon who came west on a vacation and, liking our country, purchased several ranch holdings and became a permanent Montana resident.

Even though Koessler's primary interest was in ranching, his father insisted that he become a doctor. Thus "Shorty," as he is called by his intimate associates, found himself going through medical school at McGill University in Toronto. Koessler became interested in aviation and learned to fly while going to college in 1928. Most of his primary flight training was taken on ski-equipped airplanes in this northern Canadian city.

Shorty came back to Montana and actively continued his ranching operations. He once told me that the extent of his medical practice was in taking care of neighbors in the Holland lake area, and in veterinary work on his own livestock.

When World War II came along, Shorty went into the Air Force. He was a flight surgeon in Italy, and attained the rank of lieutenant colonel. He returned to Montana after the war, and since timber had become a more valuable commodity, he started harvesting timber on his ranch, rather than livestock. He has continued in the logging business since.

Koessler purchased an airplane when he returned home from the Air Force. He has made several spectacular flights exploring most of the North American continent, which includes the Aleutians, Alaska and Canada, and the Hudson Bay area.

Shorty is one of the foremost authorities on pontoon airplane operations in remote areas.



*Lockheed Vega Airplane.*

Markle Brothers



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# Montana's Shortest Airline

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Montana's shortest and shortest-lived airline, operating what has turned out to be one of the longest-lived airplanes, was launched in Kalispell in 1930. A group of businessmen incorporated under the name of Montana Development and Air Transport company, and purchased a J5 Lockheed Vega airplane, Lockheed No. 40, built in January, 1929, at Burbank, California.

Lockheed No. 40 was flown by a Kalispell pilot named Ray Crawford, who later became the personal pilot of William Randolph Hearst. As such, he flew a private airline between San Simeon and Los Angeles, California, with the one and only trimotor biplane built by the Stinson company.

The Kalispell airline operated between Kalispell and Missoula for only a few months in 1930. But the Vega, No. NC199E, went on to fly out a colorful career. Today, in 1965, it has the distinction of being the oldest Lockheed Vega still flying.<sup>(1)</sup>

This wooden bird was sold by the Kalispell group to the McMillan Arctic Exploration company. It was then equipped with a Wasp motor, renamed *The Viking*, and flown by a well-known California pilot, Charles Roeheville.

The plane was next owned by Paul C. Grade of Los Angeles, then by Mace Naylor of Beverly Hills, California. In 1933, Tommy Westinghouse of Bainbridge, Washington, and Tueson, Arizona, purchased the Vega and painted it the famous Westinghouse blue-grey, a color he used on all his airplanes.



*Lockheed Vega on pontoons.*

Neil Keim

The ship was next operated on pontoons by Lana Krutzer in Seattle, and in 1956 was acquired by Paul Mantz of Santa Ana, California.

Mantz and Tallman operate this airplane today as one of the stable of antique aircraft in their superb museum at the Orange County Airport at Santa Ana, California.

This venerable Lockheed has had many experiences and many FAA registration numbers in its day. At present, painted red and gold, it carries the number N965Y, the Amelia Earhart Lockheed designation.

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## John H. Lockwood

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John Lockwood was a parachute jumper, born in South Dakota and grew up in the Bitterroot, later living in Missoula where his father operated the Lockwood Transfer Company.

John became a professional parachute jumper, making exhibition jumps at many Montana cities, including jumps each day at the State Air Meet in Helena during the state fair in 1927.

Lockwood later moved to Portland, Oregon, where he was killed while making a jump on May 19, 1929. In addition to parachute jumping, Lockwood was a stunt man doing wing-walking at air shows in Montana, Washington, and Oregon.

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## H. H. Munsen

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A visionary telegrapher named H. H. Munsen built himself an aircraft in Great Falls in 1909 and, without publicity or fanfare, launched himself and his triple-wing flying machine down the side of Prospect Hill.<sup>(1)</sup>

Someone tipped off the press, and two *Tribune* reporters gave a first-hand report on the successful flight of some 200 feet, which ended in a landing that demolished the machine, but didn't injure or discourage the aeronaut.

When interviewed, Munsen reluctantly informed the press of his ambitions to emulate the Wright Brothers. He said he had plans for a better machine, and had ordered a motor of some twenty hp. which he had purchased in Chicago for \$650.

Munsen described his next machine: it was 10 feet wide, 18 feet long, weighed 430 pounds, and cost \$1,000. Quite an outlay for this youthful airman, a native of St. Paul who had been employed by the Great Northern Railroad in Great Falls for two years.



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# Jack Hesser

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Jack Hesser enlisted in the Army in World War I. He was originally from Whitehall, and when separated from the service, returned to Montana. He became associated with Lynch and Reese in organizing a barnstorming flying company with operations in Billings and Butte. In 1919, Jack was a very active barnstormer with an OX5 Jenny.<sup>(1)</sup>

It took a lot of ingenuity to successfully barnstorm with a Jenny in Montana in those days, because this flighty craft was very limited in performance at altitude. Jack finally gave up this glittering but unlucrative business and settled down at Silver Gate, just west of Butte, as a railroad telegrapher.

The last time I saw Jack was when I went into his telegraph office at Silver Gate to use a phone. I was at the time repairing the engine of the K6 Standard plane which Lonny Brennan and I operated in Missoula.

Art Stephenson and Lonny had been forced down on a hillside adjacent to Silver Gate on a flight to Butte with a Chamber of Commerce automobile caravan from Missoula, led by H. O. Bell. This group of businessmen had taken the automobile caravan on a 1923 good-will tour to Hamilton and thence over the Skalkahoe road, participating in a dedication ceremony of the road and meeting with a Butte good roads delegation for an official dinner in Butte.

Stephenson and Brennan flew the K6 Standard above the caravan to Hamilton. As the caravan proceeded up the Skalkahoe pass east of Hamilton, the airplane just couldn't climb high enough to get over the summit.

Steve and Lonny flew back to Missoula, through Hellgate Canyon. They followed the river to Deer Lodge and thence into Butte, arriving over Silver Gate at the same time the caravan rolled into Butte. A motor failure forced them to land on a rocky hillside near the railroad station where Jack was the telegrapher.

I had a good visit with Jack and he came out to help me on the motor after he got off shift in the telegraph office.

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# Fred Molthen

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Fred Molthen, known as "Dutch," was one of Butte's best-known high school athletes. In his senior year he was the fullback of a Butte state championship team. In 1914, he was selected for the all-state position.

In 1916, Molthen went out for track, and at the state field meet in

Missoula he won the .440, .880 and mile runs. He was high point man of the meet. Butte was so proud of this boy that they raised funds to send him to Chicago to the Stagg Interscholastic Meet. There he won an impressive number of points representing Butte and Montana.<sup>(1)</sup>

Molthen enrolled at the State University, but with the outbreak of war, he was one of the first to enlist. He played football for the Marines while stationed at Mare Island, California, and received training as a military aviator.

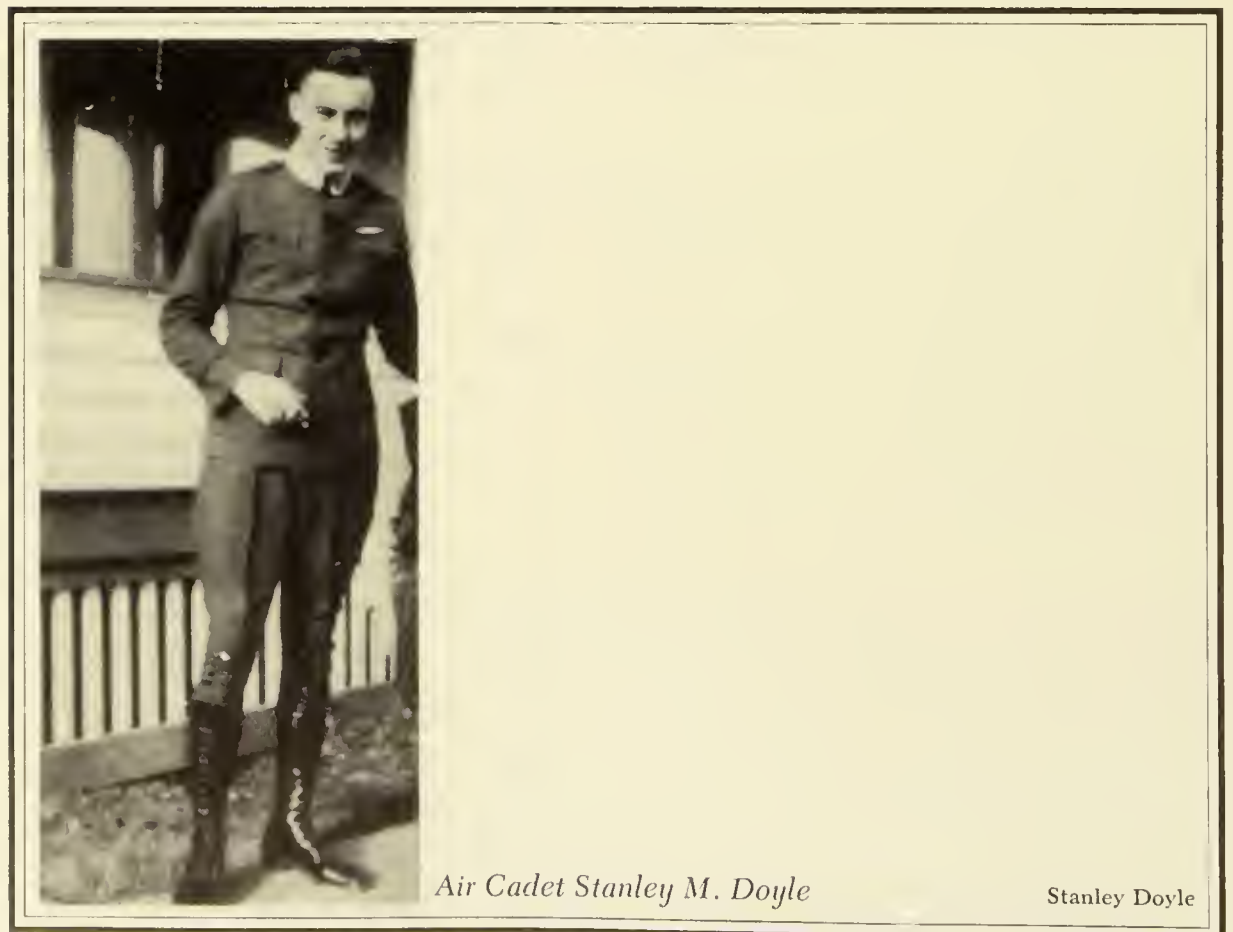
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## Stanley M. "Larry" Doyle

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A legal eagle member of the Montana Supreme Court is Stanley M. Doyle, a man dedicated to his profession, who also has a keen interest in railroading and flying. He started his varied career in the vicinity of Glendive, where he swung a mean lantern for the Northern Pacific Railway, sandwiched in with his study of law.

When World War I came along, Doyle hung up his lantern and reported to the proper authorities for flight training at Kelly Field. Here he learned the peculiarities of the Jenny and OX5 motor. For him the war came to an end too soon—before he had had a chance to cram his lanky frame into a fighter airplane. In 1919 Doyle returned to further study of law with a smoldering resentment of the destiny which had terminated his active flying career.



*Air Cadet Stanley M. Doyle*

Stanley Doyle



With the advent of World War II, Doyle again reported to the military. Because of his legal background, he was immediately assigned to G2, where he did special intelligence work out of the Seattle port of embarkation. Included were travels in the Aleutians and Alaska, where he checked all the Eskimo iceboxes for Japanese subversives.

Doyle is a member of the Daedalian Society, eligibility for which requires that a pilot must have flown in military service before 1918. He also is a member of the OX5 Club, which requires that a pilot must have watched the rocker arms jump up and down on an OX5, while suspended precariously in the aircraft of that day.

Stanley has always been a staunch supporter of aviation development in Montana and in our armed forces. He belongs to various veterans groups, and when not engaged in Supreme Court jurisprudence, may be found at his home at Polson on Flathead Lake.

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## Chauncey Flynn

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The President of the Montana Stockgrowers' Association is an unassuming cattlemán who lives at Chinook, Montana.

Flynn is considered one of the most capable of our flying ranchers, particularly on winter flying along the remote areas adjoining the Canadian border. Each year, Flynn flies survey work for the Department of the Interior, and is frequently called upon to do rescue work involving both men and livestock. Chauncey was voted "Pilot of the Year" in 1955 by our Montana Pilots' Association. This was in recognition of outstanding rescue



*Chauncey Flynn and his gunner on Coyote Hunting expedition.*

Chauncey Flynn

missions during a series of violent blizzards along both sides of the border.

Being a cowhand and horse-trader, this cow farmer has owned many airplanes. He started his flying career in 1927 when he took flight instruction from our Montana ace, Vern Lucas, with a secondary course under the rugged supervision of Harvey Barnhill in Havre. The first plane that Chauncey Flynn owned was a Curtiss Robin. He now owns a Cessna 195. In between he has had Stinsons, Cubs, Cessnas, and a Taylorcraft.

Chauncey Flynn is a man of influence in our state, and a staunch supporter of aviation as we know it. With our diminishing rights in the use of our Montana air space, we need a lot of help from men like Chauncey, or our private flying will shortly be only a memory.

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## Herb Halloway

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Herb Halloway learned to fly and purchased his first airplane from Earl Vance in Great Falls in 1927. He flew out of Harlowton with Herm Henrickson and Stanley Cavill, and later worked for Vance and Ed Klies on Montana's first scheduled airline operation, between Great Falls and Billings.

Herb flew for Inland Airlines and became chief test pilot for United Airlines when their headquarters was in Cheyenne, Wyoming. He then moved to Oakland, California, where he flew for and did test work for United Airlines.

Halloway met an untimely end in a cave-in on a construction project at his home out of Oakland.

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## Helena Municipal Golfport

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The two exhibition aircraft used by Cloyd Clevenger and Ed Todd at the state fair in 1920 were put up for sale in Helena. A local automobile repairman and race driver named Ed Follensby purchased one, a Curtiss Jenny distinctly painted with a checkerboard pattern. The other plane, a Hispano Suiza Standard, was bought by a Helena painter named Al Black.

Interest in flying and interest in golfing developed in Helena about the same time. A now-amusing feud was generated between the competition for the Helena municipal golf course as an airport. The course was used as an airport until the time Charlie Lindbergh visited in Helena in 1927.

Ed Follensby built a hangar at the south edge of the links on land he purchased from the city. Pilots doing exhibition flying at the state fairs used the course as a landing field during fair time. The local golf club, with an



cyc for business, was agreeable to accepting a rental fee for this occasional use.

But with repeated use, it was obvious that there was a traffic problem on the fairways. An additional source of annoyance was the tearing up of the sod by the plow-like tailskids on the aircraft of that day. The legal jurisdiction and ownership of the site was somewhat clouded by the fact that the area was made up of mining claims and tax-delinquent city lots.

As the years went by, the more frequent use of the course as an airport brought the matter to a head. The result was that the city of Helena acquired a tract of land in 1928 which is now the site of the municipal airport. The bitter feud was thereby resolved, and there are many golfers today who fly their own airplanes, and many pilots in the Helena area who are ardent golfers.

Ed Follensby took flying lessons from Andy Anderson and Art Stephenson. He was the solvent member of a local flying club, the members of which had an unshakable faith that the airplane was here to stay.

Ed acquired various components of Curtiss Jennys. He and his airplane were for years a familiar sight to residents of the Helena valley as he flew around between the Continental Divide and the Belt Mountains.

Ed could be relied upon by the pilots of transient aircraft for dependable service. With him this activity was an avocation to his garage operations and his later employment as the steam engineer for the Capitol complex.

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## Vern Lucas

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Vern Lucas learned to fly in World War I. After the war he was in the radio business in Havre and continued his contact with the military as a reserve officer.

Lucas was one of the most active barnstorming pilots in Montana in the 'twenties. He flew an OX5 Swallow out of Great Falls in 1927 for a man who owned and operated a string of slot machines. He flew this airplane to Helena for the state fair air meet in 1927, at which time he had the misfortune of wrecking it.

Following the Helena air meet he went to Billings, where he became associated with Bob Westover in flying and where he taught Earl Hale and Grady Woodard to fly.

Lucas had an uncanny ability to take care of himself in an emergency. But he didn't seem to be able to keep from having emergencies. He had sixteen crackups during the years of 1927 and 1928; however, he did do a lot of flying and started many Montana pilots on their flying careers.

In 1929, Lucas took a job with an east coast airline as a radio technician. He was killed in the crash of a Lockheed Vega airplane while working for the airline, shortly after he left Montana.



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## Howard Johnson

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Howard Johnson of Butte was a World War I pursuit pilot. He graduated from the Montana School of Mines at Butte in 1916, and then entered the Army Air Corps, serving overseas with the 5th Pursuit Group and the 638th Aero Squadron.

After World War I Johnson returned to Butte and followed a legal career during which he served as the Chief Justice of the Supreme Court for seven years. This assignment was preceded by five years as county attorney of Jefferson county. He was at one time assistant United States attorney at Butte. He served in the state legislature, representing Silver Bow county.

This World War I pilot now heads a private law firm in Butte where he is in partnership with his son, Keith. His other son, Don, a World War II pilot, is a graduate of the Butte School of Mines in metallurgy. He is presently employed by the McDonald Aircraft company, prime contractors for the Gemini space vehicle.

Howard Johnson is a member of the Daedalians and an active supporter of aviation and veterans' organizations in Montana.



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# Inspector Glen Neel

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Glen Neel was Montana's first resident Department of Commerce aviation inspector. He learned to fly in the Army Signal Corps at Barron Field, Texas, in 1919. Following his graduation, he barnstormed with a Curtiss Oriole; then, returning to his home, he flew for the Yellow Cab Company out of Des Moines, Iowa.

Neel was on active duty at Langley Field, Virginia, in 1929. In 1930, he came to Helena, Montana, with the Department of Commerce. He issued licenses to most of the Montana pilots who flew in the early 'thirties, and was well-liked by them.

Other DOC inspectors with whom Neel worked at that time included Bill Moore, Wiley Wright, Joe Marriette, Ed Yuravich, Len Jordan, Monte Mouton, and Bob Copsey of Casper, Wyoming, who later became Director of Aeronautics of New Jersey.

Glen Neel as a heavy bomber pilot flew a bomber for Billy Mitchell in the early 20's on the missions to demonstrate to the Navy that an airplane could sink a battleship. Glen said that on the first attempt they couldn't find the target but when they did the bombs made a sieve of the battle wagons, going through the decks and out the bottom, even though restricted in destructive power by the Navy referees. An ignored omen to Pearl Harbor.

Neel was assigned to Alaska after his Montana tour and was with Headquarters Army Air Corps under "Hap" Arnold in World War II. Having retired as a Lieutenant Colonel, he now lives in Portland, Oregon.



*Glen Neel*

Glen Neel

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# Titus Richards

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Titus Richards learned to fly in a Standard airplane with Axel Swanson in Froid, Montana. Swanson had been a pilot during World War I in the Swedish Air Force and, like many of his countrymen, he came to North Dakota, where he flew extensively and engaged in barnstorming. He spent a summer in Froid giving flight instruction to Titus Richards and Thor Thorionson.

Titus Richards was a seat-of-the-pants pilot with unusual coordination and feel for an airplane. He was handicapped by being severely cross-eyed. Indeed, this condition was so bad that, although he could see out of either eye, he could see out of only one at a time.

Richards was employed by Senator Schnitzler of Froid to fly the Senator's personal plane. The first airplane purchased by Schnitzler was a Ryan M2 which Richards flew for him in 1927. Richards did barnstorming in this craft and flew the Senator to the air event in Butte honoring Charles Lindbergh. Then they flew to Helena where Richards participated in the races in September, 1927, in conjunction with the state fair.

The next ship owned by Schnitzler was a monocoupe in which Richards taught him to fly. The Senator then purchased a Travel Air 2000, and Richards flew this in 1928 for the Senator. In 1929, Richards moved to Fargo, North Dakota. He was a flight operator in Fargo and Grand Forks and was manager of the Fargo municipal airport.

At the time Richards lived in Froid, Senator Schnitzler arranged for him to have an operation by a famous German surgeon who had come to this country to perform eye surgery in New York. A delicate operation was done, correcting the defect in Richards' eyes.

Richards was a typical barnstorming pilot of the 'twenties. He continued to fly actively and during World War II, when he volunteered as a pilot in the Civil Air Patrol. He did courier service between air bases in Colorado and Nebraska. Richards dropped dead of a heart attack one morning while walking across a ramp on a Nebraska air base.

Incidents in Richards' flying career include a crackup in the Westland Oil Company Ryan at Crosby, North Dakota. He hit a fence on an attempted takeoff, putting the airplane on its back. On this flight he had two passengers, and miraculously neither he nor the passengers were injured. A contributing factor was a Curtiss Jenny propeller which Richards had put on the Ryan to replace the regular prop which had been damaged.

Another flying incident involving Richards happened at Fargo. He was flying a Waco cabin plane over the city at night when he had a motor failure due to lack of fuel. Richards landed the plane in the dark—dead stick—and it was wrecked when it ran into a ditch. Neither Richards nor the passengers received any injury.



In those days, a pilot who had never had a crackup had never gone anywhere.

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## Lawson H. Sanderson

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Lawson H. 'Sandy' Sanderson in 1915 attended the state university and was a star football and basketball player. He played professional baseball on the Great Falls team in the northwestern league.

In July, 1917, Sanderson enlisted in the Marine Corps and played on the championship Mare Island, California, football team. He later earned a commission in the air service.<sup>(1)</sup>

After World War I, Sanderson continued a military career with the first aviation group of the Marines at Quantico, Virginia. He received international recognition at Omaha in 1923 when he broke the world's speed record in the Pulitzer Speed Trials, attaining a speed of 254 miles per hour. Sanderson also held the world's record in altitude.

Sandy visited in Montana in 1926 when he attended the state convention of the American Legion in Great Falls, followed by flying at the Crow Agency at the fifty-year celebration of the Custer massacre.

I carried passengers there at that show and met Lieutenant Sanderson for the first time. He was flying a Liberty-powered DH4. His mechanic, Sgt. J. J. Whitman, gave me some spare parts for my Hisso motor which he happened to have. Spare parts were hard to come by—especially on the Crow reservation.

In 1927, Sanderson flew out to Spokane for the National Air Races. He and Jimmy Doolittle stopped overnight at Miles City where I helped them land after dark by lighting the field.

Sandy Sanderson has served his country well, participating in three wars as an active pilot and attaining the rank of a multi-starred general.

He has retired and lives at Coronado, California. He is, I'm sure, ready to go again if his country needs him.

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## Fritz Sterling

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Fritz Sterling, now of Miami, Florida, lived in Missoula, where he attended high school and graduated from the university in law. He took flying lessons with the Johnson Flying Service in 1928, following which he took further flight training at a flying school in Kansas City.

Sterling became an army pilot, with flight training at March Field and

Kelly Field. He was assigned to duty in the Canal Zone, where he separated from the Army Air Corps to accept employment with the Ismain Airways as a pilot.

In 1934, Fritz became a pilot for Panagra Airlines, flying on Panagra routes in Central and South America. He returned to the United States during World War II, and was engaged in aviation in St. Louis. Following the war, he again became a pilot and executive for Panagra Airlines.<sup>(1)</sup>

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## Fred Sheriff

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This Montana rancher, who specialized in wool production and contributed materially to aviation development in the state, was born at Canyon Ferry in 1890. He followed the pattern of many Montana youngsters of that time, graduating from high school in Helena, and from the University of Wisconsin in 1912, majoring in civil engineering.

After an indoctrination in the merchandising of automobiles, he was launched into the stock business in 1920. He first became interested in airplanes in 1923 when he became a partner with Ed Follensby and Al Stewart in the purchase of a Curtiss airplane. Art Stephenson administered flying instruction at odd intervals, when the Jenny and weather were flyable.

Sheriff continued flying as a hobby, with a keen interest in aviation. He was serving as a member of the Helena Airport Board at the time the airport was established in 1928. He later helped promote airline service through Montana, serving as a director of both National Parks Airways and Western Airlines.

During the depression, Fred administered funds of the Banking and Agricultural Credit Corporation, in which some \$18 million was pumped into Montana's economy through this federal agency.

In 1932 Sheriff was given the responsibility of setting up an airport network in the state, with expenditures of approximately \$1 million in a W.P.A. program. One of the projects was the development of an airport at West Yellowstone. This airport was constructed during the early thirties, and was opened to the public in June of 1935.

Fred became Montana's first Director of Aeronautics in 1933. He carried out this responsibility for three years, and in 1936 was president of the National Association of State Aviation Officials. While engaged in aviation administration, Sheriff owned and operated his own plane and was recognized as a competent, proficient pilot.

The details of Montana aviation administration increased to the point where Sheriff had to make a decision as to whether to be a rancher, or drop his ranching and become an aviation administrator. With his substantial ranch holdings, he decided to give up the flying.



Fred Sheriff has now retired and lives in Helena. He continues to have a warm interest in aviation as we know it today in our state.

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## Leslie Towers

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Leslie Towers of Polson, while still in grade school, decided that he would become an airline pilot. He arrived at this decision after having a ride with T. T. Maroney in an airplane in which Maroney was doing exhibition flying at Polson in 1913. Maroney not only stimulated an interest in Towers' becoming a pilot, but also distinguished himself by making an unpremeditated landing in Flathead Lake due to engine failure.

Towers finished high school and in 1922 attended the University of Washington, where he took up engineering. He worked for Boeing Aircraft while in Seattle, and received an appointment for flight training with the army at Kelly Field, Texas, in 1924.<sup>(1)</sup>

Returning to Seattle after his army training, Towers again worked for Boeing and became their chief test pilot. He contributed much to the development of the B17 bomber. This bomber, first flown in 1935, was a major contribution to the defense of this country. Without it our unpreparedness would have been more disastrous than it was, when we were faced with the sudden Japanese attacks on Pearl Harbor and Alaska.

Towers was killed on October 10, 1935, while test-flying one of the first B17 bombers at Dayton, Ohio. This terminated the career of a Montana man who, though not too well known in his home state, contributed a great deal to aviation development.

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## Fletch Wilson

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Fletch Wilson was a World War I pilot. He lived in Forsyth where he worked for his father-in-law in a lumber yard. Fletch brought home his interest in aviation, and in 1920 purchased two airplanes, a Thomas Morse Scout with a rotary engine, and an OX5 Jenny. He used to keep his planes in the fairgrounds building during the winter. In the summertime he flew them from a site east of Forsyth where the present airport is located.

Fletch didn't take flying very seriously, but I used to stop and visit with him when going through Forsyth. He occasionally flew into Miles City.

Fletch spent winters in California as a reserve pilot in the army, flying with the reserve unit in Santa Monica at Clover Field. As the years went by, his returns to Montana became less frequent.

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# Municipal Airplane

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The exhibition flyers of 1911 had a goldmine with no competition but the grim reaper, and with the demand exceeding the supply by a wide margin.

The town of Glendive booked "Lucky Bob" St. Henry as their stellar attraction for the Fourth of July. The program committee became desperate when the Curtiss Exhibition Company had to cancel their show when St. Henry couldn't get there.

An appeal to their booking agent with a \$300 deposit resulted in a substitute appearance being arranged with an exhibition flight scheduled by a pilot from Chicago named Felix Schmidt, in an airplane allegedly owned by one Miss Cosey Smith.

Several thousand visitors came to the Glendive celebration, and an attractive program included a ball game, vaudeville show and athletic events, with the airship event as the feature attraction.

The people waited patiently at the side of the present golf links for the airplane to go up, but in late afternoon the flight was cancelled.

The crowd didn't like the looks of the machine or the flyers, and when someone suggested pushing the contraption in the river, a cowboy dabbed a rope on the nose of the airplane and, assisted by willing hands, started for the river bank nearby.

Aviator Schmidt and his crew, including Cosey Smith, fled in panic from the angry crowd. The airship was rolling swiftly toward the river when Major Donohue of the state militia threw a detail of militiamen in front of the crowd, surrounding the airship with a circle of bayonets and saving it from destruction.

The citizens' committee took action to serve an attachment on the machine. It was predicted that the city of Glendive would shortly be the first Montana city to own an airplane. Ref. Great Falls Tribune, July 5, 1911.



*Curtiss JN6 airplane.*

Mrs. Ed Duebler



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# Biographies

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Names of all pilots obtained by research

**ADAIR, Virgil** — Virgil Adair was raised on a ranch near Potlatch, Idaho. He learned to fly in Vancouver, British Columbia, in 1919. He carried pictures of the Dempsey-Gibbons fight from Shelby to west coast newspapers in 1923. He barnstormed Montana cities in the 'twenties, and continued an active flying career until his retirement in 1960. Adair engaged in all types of commercial flying and served as a pilot with the ferry command in World War II. He now lives in Lewiston, Idaho, where he operates a restaurant on the airport.

Montana aviation history file.

**ADAMS, Baxter** — Baxter Adams was an aviation pioneer in northern Montana, living in the Whitetail and Redstone area. The files of the "Daniels County Leader" have a picture of a Curtiss pusher-type airplane which was owned and flown by Adams in 1912. Another picture in the files of this paper shows a Curtiss Jenny which Adams flew in that area in 1919.

Scobey Anniversary Album, 1948, Montana Historical Library.

**ALLEN, George** — George Allen learned to fly in the Army Air Corps in the early 'twenties and graduated from Kelly Field as a second lieutenant. He was employed by Ryan Airlines as a pilot on the first scheduled airline operating between Los Angeles and San Diego. He flew for Jack Lynch in Butte in 1927 and then became an airline pilot for Pacific Air Transport and United Airlines, flying on the Los Angeles-San Francisco run.

Montana aviation history file.

**ALLEN, Glen** — Glen Allen was the son of A. C. Allen of Billings. He enlisted in the Army Air Corps in 1917 and, like many World War I pilots, learned to fly in Texas. An MNA account describes a "buzz job" he did in Fort Worth, Texas, in 1918, and he was later assigned to a pursuit school for training.

MNA Oct. 28, 1918, p. 26.

**ALLEN, Maurine** — Miss Allen learned to fly at Rogers Airport at Los Angeles, California, early in the 'twenties. She was the daughter of a Billings dentist and was active in flying in the Lewistown area. A feature story distributed to Montana papers in 1938 gives an account of her having had five forced landings during the four years of her flying career.

Great Falls Leader, June 6, 1928.

**ALLEN, William** — William Allen was raised in Lolo, Montana. He graduated from the University law school in 1921, and practiced law in Seattle, Washington, being retained by the Boeing Company and advancing to the presidency of this large airplane manufacturing organization.

Montana aviation history file.

**ALEXANDER, Mat** — Mat was the president of the Butte Water Company. He owned a Hiss Standard in Butte in 1925, where he barnstormed locally and engaged in commercial flying activities with Jack Lynch and Bert Mooney.

Western Flying, April, 1927.

**ALLISON, Howard** — Howard was raised in Marmarth, North Dakota. He learned to fly in Miles City in 1927 where he was a partner of John Wise' in a commercial flying operation.

Montana aviation history file.

**ANDERSON, Herbert** — Herb was a World War I pilot. He was trained in the Navy and served as a naval aviator during both World Wars I and II. Anderson made Missoula his

home in the 'twenties during a sojourn between active duty periods.

Montana aviation history file.

**ANDERSON, Seymour "Andy"** — Andy was a World War I pilot. He lived in Laurel and barnstormed in the Billings area, participating in the air show which was on the program of the state fair in Helena in 1921. Andy gave many local pilots in Billings and Laurel their first flight instruction. He later moved to Big Timber after he had discontinued flying, and there operated a restaurant.

Helena Independent, Aug. 10, 1921; Sept. 12, 1921; Sept. 21, 1921.

**ANDREWS, Andy** — Andy Andrews barnstormed Montana in the early 'twenties with a Hiss Standard. Vance Breese was his parachute jumper. Andy lived in Helena in 1923, at which time he taught Al Black to fly. Andy later moved to Albuquerque, New Mexico, where he became an airline pilot and a division superintendent for TWA.

Montana aviation history file.

**AMES, Hub** — Hub was raised in Scobey, Montana. He was involved in an airline accident in St. Paul in 1929, in which a Ford Trimotor taking off from Holman Field crashed on the Indian Mounds, at which time Ames was seriously injured. He received compensation for his injury, and made use of part of this money in learning to fly with Paul Mantz in Burbank, California in 1930. Hub lives in Scobey where he is engaged in commercial aviation, having served as a ferry command pilot during World War II.

Montana aviation history file.

**ATWATER, Richard Meade** — Richard Atwater of Helena was a grandson of Bishop Brewer of the Episcopal Church. He made application to join the United States Army in 1917, but because of his youth was disqualified. He then went to Canada where he enlisted in the Royal Flying Corps. It is believed that he was the youngest soldier in any army to receive the French War Cross.

MNA, Vol. 1, 1917, p. 137.

**BACH, Morton L.** — Morton was a pilot from Venice, California, and he accompanied C. O. Prest on an aerial flight from Mexico to Siberia with an OX5 Standard, flying through Montana in 1921.

Montana aviation history file.

**BAIN, Jack** — Jack was a pilot on National Parks Airways in 1930. He flew for this company for several years, and later flew for Northwest Airlines.

Montana aviation history file.

**BAKER, R. L.** — Baker was a mechanic in Billings who, in 1911, constructed an airplane copied after the French Bleriot monoplane. There is no record of his having flown this airplane.

Great Falls Tribune, April 13, 1911.

**BAKER, Solomon F.** — Sol was from Twin Bridges and was a World War I pilot in 1918.

Montana aviation history file.

**BALDINGER, Ora M.** — Ora was a World War I pilot. He commanded the Army victory loan circus, which was a group of airplanes touring Montana cities immediately following World War I in 1919.

MNA, Sept. 29, 1919, p. 413.

**BARDON, Paul E.** — Paul was from Missoula and was a World War I pilot in 1918.

Montana aviation history file.

**BARNHILL, Harvey W. "Barney"** — Barney came to Havre from Iowa in 1927 where he did barnstorming and flight instruction. He later moved to Alaska where he became a



bush pilot, following which he returned to Spokane, Washington, and engaged in mining operations.

Montana aviation history file.

**BAXTER, Bill** — Bill was a rancher in the Harlowton area. He learned to fly in 1929 and is recognized as a Montana flying rancher, having an airport and hangar on his ranch, which is operated under the name of Baxter and Jones.

Montana aviation history file.

**BECK, Walter** — Walter was the son of a Missoula doctor. He made a reputation as a road-race car driver in 1910, and flew an airplane in Missoula in 1911, followed by exhibition flying in many northwest towns in the two years following.

*Daily Missoulian*, Centennial Edition, Sec. C, p. 22

**BEER, Kenneth** — Kenneth was employed by a group of businessmen in Ekalaka to fly their airplane, which was an OX5 Lincoln-Page. He barnstormed eastern Montana in 1928, following which he became a Pan-American pilot, flying on runs through Mexico and South America.

Montana aviation history file.

**BELL, Dr. Frank** — Dr. Bell was a Billings dentist and he learned to fly at North Island, San Diego, California, in 1912. He did exhibition flying with a Curtiss pusher airplane in many towns in the states of Colorado, Wyoming, South Dakota and Montana.

Montana aviation history file.

**BENBOW, T. C. "Chalk"** — Chalk was a Stillwater rancher who designed and built models of a dirigible balloon. He formed an aviation company at Columbus, Montana in 1900, and with funds subscribed by stockholders, had a dirigible balloon built which he flew at the St. Louis Exposition in 1904.

Montana aviation history file.

**BERGMAN, Fred** — Fred was employed as the field manager and traffic man for Wyoming Airlines. He later worked for Western Airlines and was airport manager in Lewistown in 1930.

Montana aviation history file.

**BERKIN, John** — John was recognized in Butte as an automobile racer. He took flight training to become a pilot in 1920. *Miles City Independent*, June 11, 1920; MNA, March 15, 1920; June 28, 1920.

**BERTELAW, Paul** — Paul lived in Butte. He purchased and flew a Gypsy Moth airplane in the Butte area.

Montana aviation history file.

**BISHOP, Glen** — Glen was in the Army Air Corps in World War I. He located in Miles City where he was an aviation mechanic from 1927 until 1930.

Montana aviation history file.

**BLACK, Al** — Al was a Helena businessman engaged in the painting trade. He purchased a Hisso Standard in 1921 and learned to fly, following which he barnstormed the Helena area.

Montana aviation history file.

**BLITEMAN, Charles H.** — Charles was from Glasgow, Montana. He was a World War I pilot in 1918.

Montana aviation history file.

**BOOSER BROTHERS** — The Booser Brothers of Conrad were Ford automobile dealers and they became distributors for the Barling airplane in 1928, engaging in airplane sales and service operations.

Montana aviation history file.

**BOURQUIN, M. M.** — Bourquin of Butte was a Navy pilot in World War I in 1919. He was the only Montanan to view the surrender of the German fleet from the air.

MNA, Jan. 6, 1919, p. 109.

**BRADSHAW, John R.** — John was from Helena and was a World War I pilot in 1918.

Montana aviation history file.

**BREESE, Vance** — Vance was a parachute jumper for Andy Andrews and made jumps at Dillon in 1923. He later became an outstanding test pilot for Ryan, Lockheed, and North American. He designed and built his own aircraft,

one of which was flown by Martin Jensen in the Dole race to Hawaii in 1927.

Montana aviation history file.

**BRENNAN, E. A. "Lonny"** — Lon was in the bakery business in Missoula. He purchased a K6 Standard in 1923 and learned to fly, following which he engaged in civil aviation, barnstorming and flying airline. Brennan later went to Alaska where he became a famous bush pilot.

*Bridger Times*, Dec. 27, 1928, p. 2; *Daily Missoulian*, Centennial Edition, Sec. C, p. 22.

**BRENNAN, Lester Luke** — Lester was a Missoula RAF pilot in 1918.

MNA, Vol. 1, 1918, p. 361.

**BROOKS, Frank** — Frank was a jovial showman and parachute jumper who made exhibition jumps in many Montana cities during the late 'twenties. His specialty was a triple jump with red, white and blue parachutes.

Montana aviation history file.

**BROWN, Linthrop E.** — Linthrop was a rancher in the Glasgow area. He learned to fly in 1912, having FAI license No. 267, and he flew for the RAF in World War I.

MNA, Vol. 1, 1918, p. 205.

**BROWNFIELD, Lt. A. J.** — Lt. Brownfield was an army pilot from Fort Reilly, Kansas, who, with Lt. Rice, did exhibition flying at an air show in Miles City in 1928 as one of a team of army pilots flying Douglas Liberty-powered O2 aircraft.

*Western Flying*, Oct., 1928.

**BRYCE, Edgar** — Edgar was from Butte, and an RAF pilot in 1918.

MNA, Vol. 1, 1918, p. 373.

**BUCK, Fred** — Fred was a Kalispell businessman who learned to fly with Nick Mamer in Spokane in 1928. He purchased an OX5 Travel Air, which he barnstormed in the Kalispell area and later purchased a Stinson SM8A.

Montana aviation history file.

**CALLITY, R. N.** — Callity was from Butte, and was a World War I pilot in 1918.

Montana aviation history file.

**CALVIN, Carl R.** — Carl, a Miles City businessman, was one of the stockholders in a Miles City aviation company in 1920.

MNA, Jan. 24, 1921, p. 131.

**CAMPBELL, Jarge** — Jarge was raised in Great Falls. He was a pilot in World War I with the French *Escadrille*, after which he returned to Montana and now lives in Kalispell.

MNA, Nov. 29, 1920, p. 61.

**CARY, Bud** — Bud was from Malta, Montana, where his father was a doctor. He learned to fly at the Thomas School in New York state, and did exhibition flying with flying boats on the Mississippi River in 1912.

Montana aviation history file.

**CARGILL, Lester B.** — Lester was from Choteau and was a World War I pilot in 1918.

Montana aviation history file.

**CARTER, Hugh T.** — Hugh was from Helena and was a World War I pilot in 1917.

*Bridger Times*, June 28, 1922, p. 2.

**CAVILL, Stanley** — Stan was raised on a ranch near Harlowton. He learned to fly in 1927 and after several years of barnstorming experience, was employed by National Parks Airways and then Western Airlines. He served a hitch in the Air Force during World War II and retired from Western in 1964 as flight operations chief. Cavill now lives in Hamilton.

Montana aviation history file.

**CHAFFIN, "Cubs"** — Cubs grew up in the Bitterroot. He moved to California where he was a cartoonist and writer. With a partner, he initiated "Tailspin Tommy," a syndicated aviation cartoon strip. As a writer, Cubs associated with aviation people for years in the barnstorming era in the Los Angeles area. He returned to the Bitterroot where he did



some farming and is now associated with the Hamilton Chamber of Commerce.

Montana aviation history file.

**CHARTERIS, Joe** — Joe learned to fly in Great Falls in 1930. He was associated with Con Ellington in the building of a unique, retractable wing airplane. He served a hitch in World War II and now operates a hardware store in Great Falls.

Montana aviation history file.

**CHRISTIE, Douglas** — Doug was from Helena, and was a World War I pilot in 1918. He learned to fly with the Army in Texas and was mentioned for flying his airplane from Waco, Texas to Kansas City in six hours, forty-five minutes.

MNA, Dec. 16, 1918, p. 85.

**CLARK, Tom** — Tom learned to fly in Livingston with Martin Zolman and was active as a pilot in the Livingston area in 1928.

Montana aviation history file.

**CLARKE, Frank** — Frank was born in Butte and flew extensively in California where he was recognized as the ace of motion picture pilots.

Montana aviation history file.

**CLEVENGER, Cloyd P.** — Cloyd was a World War I pilot who later engaged in exhibition flying and civil aviation. He flew at the State Fair in Helena in 1920, following which he became chief pilot for the Eagle Rock airplane company in Denver. He later operated an airline between Oaxaca and Acapulco, Mexico.

Montana aviation history file.

**CODY, Samuel F.** — Sam was a Texas trail boss and Montana cowboy who experimented with kites and built his own airplane. He was the first pilot to fly for the British army in England.

*Daily Interlake*, May 13, 1911, p. 1.

**COLE, Bert L.** — Bert was from Miles City and was a World War I pilot. He learned to fly in 1918 and barnstormed Montana, Wyoming and Colorado in the early 'twenties.

Montana aviation history file.

**COMBES, Billy** — Billy was a Sidney businessman who purchased his own airplane in 1927. Following this he learned to fly, using his airplane in his business and barnstorming in eastern Montana.

*Bridger Times*, Aug. 25, 1927, p. 23.

**CONFARR, Gene** — Gene was from Livingston and was a World War I pilot in 1918.

MNA, July 7, 1919, p. 313.

**CONLON, James** — Conlon was from Missoula, and a World War I pilot in 1918.

Montana aviation history file.

**CONNER, Henry W.** — Conner, from Fort Benton, Montana, was a World War I pilot in 1918.

Montana aviation history file.

**COOK, Jim** — Jim was raised in Wolf Point. He learned to fly in Detroit, Michigan in 1928, and did commercial flying and barnstorming out of Wolf Point for several years, later going into the creamery business. He then moved to Seattle where he was associated with a collection agency.

Montana aviation history file.

**COOPER, Byron** — Byron learned to fly in the Army Air Corps. After getting out of the service he was employed by Earl Vance of Great Falls as a pilot, in 1928. Coop learned some of the fine points of flying while barnstorming for the Vance Air Service, and in the early 'thirties, went to work for Northwest Airlines. He is now one of the old heads on that airline.

Montana aviation history file.

**COUGHLIN, R. J.** — Dick was the president of the Westland Oil Company at Scobey, Montana. He purchased a Ryan airplane in 1927 and used this airplane extensively in his business in the oil company territory of North Dakota, Montana, and Saskatchewan.

*Bridger Times*, Aug. 25, 1927, p. 3; May 19, 1927, p. 2.

**COULTAS, Jack** — Jack lived in the Hamilton area. He learned to fly in 1929, following which he built a hangar

and developed an airport on his ranch some twenty miles south of Hamilton. He is now retired and lives in Mexico.

Montana aviation history file.

**CRAWFORD, Ray** — Ray flew for the Montana Development and Air Transport Company located in Kalispell in 1930. This company operated a schedule airline between Kalispell and Missoula for a few short months, following which Crawford moved to Glendale, California, where he was the private pilot for William Randolph Hearst, flying a Stinson trimotor between Los Angeles and the Hearst palatial estates north of Santa Barbara.

Montana aviation history file.

**CRITCHON, Preston L.** — Critchon, a World War I pilot in 1918, was from Geraldine, Montana.

Montana aviation history file.

**DAHL, O. A.** — Dahl was an Ekalaka businessman who purchased an airplane in 1928 and with his partner, Emswiler, operated a flying service in eastern Montana.

Montana aviation history file.

**DANIELS, Ralph** — Ralph flew for Mamer Air Transport in Spokane, barnstorming a Ford Trimotor through Montana in 1929, and flying airline between Seattle and St. Paul in 1930, for Mamer and later for Northwest Airlines.

Montana aviation history file.

**DAVIS, Beverly** — Davis was a flying rancher. He learned to fly with Earl Vance in Great Falls in 1927, and owned several airplanes, operating them from a landing strip on his ranch west of Stanford.

Montana aviation history file.

**DAVIS, William E.** — Davis was from Scobey, and a World War I pilot in 1918.

Montana aviation history file.

**DESCHAMPS, Romey** — Romey was an airplane mechanic in Missoula. He learned to fly in 1926 and barnstormed locally in the Missoula area, following which he was employed by the Johnson Flying Service as an A and E mechanic.

Montana aviation history file.

**DeVEAU, Ruby** — Ruby DeVeau, now Mrs. Louise Owen, was a balloon parachute jumper in 1890 to 1894. She made exhibition jumps in all parts of the United States, and was the first woman balloonist to make exhibition jumps at night. Mrs. Owen lives at the Hillside rest home in Missoula, with her memories of many exciting adventures.

Montana aviation history file.

**DiFIORE, Dominic A. "Wop"** — Wop was a pilot and flight instructor during World War I. He hailed from Pasa Robles, California, and flew out of Missoula in 1923, when he was employed as a pilot by two men from Spokane, Confarr and English. DiFiore probably did the first aerial freight operation in Montana when he transported pipe by air from Superior to a mine on the head of the Clearwater and delivered this cargo by aerial drop.

*Daily Missoulian*, Centennial Edition, Sec. C, p. 22.

**DITEMAN, Urban F.** — Diteman was an insurance man in Billings. He learned to fly in 1928, following which he purchased an airplane and disappeared on an attempted solo transatlantic flight.

Montana aviation history file.

**DIXON, Cromwell** — Dixon did exhibition flying for the Curtiss Company. He was raised in Columbus, Ohio where, as a teenager, he built a dirigible balloon powered with bicycle pedals, following which he learned to fly with Curtiss. He was the first pilot to fly across the Continental Divide. This was accomplished while he was doing exhibition flying at the Helena state fair in 1911.

*Sunday Dispatch*, Columbus, Ohio, Oct. 19, 1958.

**DOYLE, Stanley M.** — Stanley Doyle came west and was employed as a railroader in Glendive. He enlisted as a cadet in World War I, became a pilot, and in 1918, following the war, returned to Montana. Having studied law, he became a prominent attorney and is now a member of the Montana Supreme Court.

Montana aviation history file.



**DUNN, Horace** — Horace was raised in Ennis, Montana, and at the time he learned to fly in 1928 at sixteen years of age, was one of the youngest pilots to have soloed an airplane.

*Bridger Times*, Oct. 24, 1928, p. 2.

**DYNAKER, Samuel W.** — Sam was from Billings and a pilot in World War I in 1918.

Montana aviation history file.

**EILSON, Ben** — Ben was the first Department of Commerce aviation inspector to visit Montana in 1926. He later became a very famous Alaskan bush pilot.

Montana aviation history file.

**ELLINGHOUSE, Ray** — Ray was from Sheridan, Montana. He was employed by National Parks Airways in 1930 as a traffic man in Great Falls, later becoming a pilot for this airline and for Western Airlines.

Montana aviation history file.

**ELLINGSTON, Con** — Con was from Butte. He was an automobile mechanic of unusual ability, with an interest in aircraft; he built a very successful airplane in Great Falls of unique design, with both retractable landing gear and a retractable wing.

Montana aviation history file.

**ELSMORE, Ray** — Ray, of Salt Lake City, was a World War I Army pilot and an airline pilot for National Parks and Western Airlines, flying between Salt Lake and Great Falls in 1928. He served in the South Pacific in World War II and with distinction.

Montana aviation history file.

**ELY, Eugene** — Ely did exhibition flying at Montana cities in 1910 and 1911.

*Daily Missoulian*, June 14, 1911; *Daily Interlake*, June 20, 1911;

*Billings Gazette*, June 16 and 18, 1910;

*Great Falls Tribune*, Dec. 7, 1911.

**EMERSON, George** — George was from Great Falls, and was a pilot in World War I in 1918.

Montana aviation history file.

**ERVINE, George E.** — George was a Butte airplane inventor in 1917.

Montana aviation history file.

**FARRELL, John** — John was a World War I pilot from Red Lodge in 1919. He returned to Montana and actively engaged in aviation and aircraft sales, and barnstorming in the Billings area in 1920.

MNA, Dec. 8, 1919, p. 73.

**FERGUSON, William G.** — Bill was a World War I pilot from Missoula. He returned to Montana after the war in 1920, continuing his active interest with aviation in Miles City, later becoming a very prominent aviation man throughout the state and as a member of the first Montana Aero-aunties Commission.

*Bridger Times*, Oct. 13, 1927; MNA, Jan. 24, 1921, p. 131;

MNA, Sept. 9, 1929.

**FILSON, H. R.** — Filson flew as a pilot in the Helena area in 1928.

Montana aviation history file.

**FINLEY, William P.** — William Finley of Great Falls was a World War I pilot in 1917.

MNA, Sept. 1, 1919, p. 384.

**FISHER, Bud** — Bud learned to fly in Butte in 1927, and barnstormed Montana with a 6,000 Travel Air, owned by an Anaconda baker. Fisher was killed in attempting a forced landing on a charter flight in Idaho with several passengers in a Bellanca airplane who miraculously escaped injury.

Montana aviation history file.

**FLACHSENIAR, Walter H.** — Walter was a pilot in World War I in 1918. He was from Terry, and returned to Montana to become a prominent attorney. He now resides in Forsyth.

Montana aviation history file.

**FLYNN, Chauncey T.** — Chauncey is a rancher in the Chinook area. He learned to fly in 1928 and actively flies in connection with his ranch operations.

Montana aviation history file.

**FOLLENSBY, Ed** — Ed was a specialist in steam automo-

biles in Helena, and in 1921 purchased a Curtiss JN4D airplane which he flew in the Helena area.

Montana aviation history file.

**FORSYTHE, William J.** — Forsythe, of Culbertson, Montana, was a World War I pilot in 1918.

Montana aviation history file.

**FOX, John** — John learned to fly with Jack Lynch in Butte in 1929, barnstormed throughout Montana, and then became an agricultural flight operator in the Dutton area.

MNA, July 11, 1929.

**FRANKLIN, G. E.** — George was an airplane engine mechanic and inventor in World War I. He moved to Montana in 1920, where in Miles City he developed a revolutionary type airplane engine.

Montana aviation history file.

**FRY, Ralph** — Ralph, from Pocatello, Idaho, was a World War I pilot and a World War II pilot. He flew airline for National Parks Airways in 1928, during the time that this airline operated in Montana.

Montana aviation history file.

**GATES, Byron T.** — Byron was from Polson, and a World War I pilot in 1918, flying on the Mexican border.

MNA, Jan. 26, 1930, p. 133.

**GARRETT, Robert** — Bob barnstormed the Crow Agency celebration in 1926, and many other eastern Montana towns during the 'twenties. He lived in Sheridan, Wyoming, and in World War II headed up the instrument training program for the Air Force in the Pentagon. Garrett had a varied career, which included barnstorming, airline piloting for Wyoming Air Service and TWA, and an active military flying career.

Montana aviation history file.

**GATTON, Cyrus G.** — Cyrus was from Bozeman, and was a pilot in World War I in 1918 attached to the Lafayette Escadrille.

MNA, Vol. 1, 1918, p. 417.

**GIES, Oliver "Ollie"** — Ollie was from Great Falls. He owned a Hall-Scott Standard in 1920, and barnstormed

*Great Falls Tribune*, July 31, 1921, p. 6. many Montana towns.

**GILLIS, Al** — Al was raised in Great Falls. He took flight training in 1927 in Spokane, and in the 'thirties was active in airplane sales and service. He now operates the Cillis Flying Service, distributors for Piper aircraft, in Billings, Montana.

Montana aviation history file.

**GRANT, unknown** — Grant was a World War I pilot, later living in Sheridan and Butte, where he was associated with Bert Mooney in commercial aviation in the 'twenties.

Montana aviation history file.

**GREEN, A. B. "Abie"** — Green of Billings operated a vocational aviation school in conjunction with the Billings high school in the late 'twenties. He designed and built the Bluebird airplane, which was put into limited production in Billings in the 'thirties.

Montana aviation history file.

**GREEN, Harrison** — Harrison Green was a Lewistown businessman who, with great foresight, developed the first airport in Lewistown in 1928.

*Western Flying*, April, 1928.

**GREENING, Col. C. Ross** — Ross had his first airplane ride at a Crow Agency celebration in 1926. He became a military pilot in the 'thirties and an ace in World War II. Greening was an accomplished sculptor and portrait artist.

Montana aviation history file.

**GRUPE, Roy** — Roy was a mechanic and blacksmith at Broadview, Montana. He built an airplane of his own powered with a Ford engine and later acquired a surplus World War I fighter airplane, in which he learned to fly and soloed in one flight — until he ran out of gas. Grupe barnstormed with a Kinner Eagle Rock in western Montana and Idaho. When last reported, he was running a tie mill near Lewiston, Idaho.

Montana aviation history file.



**HACKBARTH, Bill** — Bill, from Idaho Falls, Idaho, learned to fly in 1925. He barnstormed Montana towns and attended the Air Meet in Helena in 1927, flying a Hisso Standard. Hackbarth migrated to Los Angeles in 1932, where he did sign-towing with a Liberty-powered Douglas O2. He later engaged in commercial flying in Santa Paula, California, with Rex Wells.  
Montana aviation history file.

**HADDOCK, Frank J.** — Frank was a Great Falls parachute jumper who jumped at many Montana cities in the early 'twenties, sometimes accompanied by a monkey.  
MNA, Mar. 11, 1929; MNA, June 7, 1926.

**HALE, Dick** — Dick was the county surveyor in Missoula, and is credited with promoting Missoula's first municipal airport. He learned to fly in 1928.  
Montana aviation history file.

**HALE, Earl** — Earl learned to fly in Billings in 1927. He was an executive pilot for Senator Schnitzler, following which he became an airline pilot for Wyoming Air Service, then with Northwest Airlines. Hale ferried military aircraft to Alaska during World War II, leading a group of pilots in a mass aerial delivery of aircraft to India. He has now retired from Northwest and lives at Sun City, Arizona.  
Montana aviation history file.

**HALLOWAY, Herb** — Herb was a Harlowton barnstormer in 1928, later becoming a test pilot for United Airlines at Oakland, California.  
Montana aviation history file.

**HALLETT, George** — George was from Spokane. He was a National Guard pilot and airline pilot on Mamer Airlines through Montana cities in 1930.  
Montana aviation history file.

**HAMILTON, Dillard** — Dillard came to Montana in 1928 as a Department of Commerce safety inspector. He barnstormed for Earl Vance and then became airport manager of the Great Falls municipal airport.  
Montana aviation history file.

**HANSON, Earl** — Earl came to Montana from Iowa, flying out of Harlem in 1929. He barnstormed for several years in Montana and was a ferry command pilot in World War II.  
Montana aviation history file.

**HANSON, Louis** — Louis was a Havre railroader who learned to fly in 1928 and barnstormed in California, Montana and Minnesota.  
Montana aviation history file.

**HARWOOD, Ben J.** — Ben was raised in Butte. He was a lieutenant in World War I in 1917, serving in the Army Air Corps as an executive officer and observer. Harwood was decorated for action in engaging military aircraft, in which he was seriously wounded.  
MNA, Vol. 1, 1918, pp. 240, 339; MNA, Jan. 13, 1919, p. 113; MNA, April 25, 1921, p. 237.

**HARTZ, Col. R. S.** — Col. Hartz commanded a Martin bomber which made stops in many Montana cities in a successful flight around the border of the United States in 1919.  
Montana aviation history file.

**HAVILAND, Willis Bradley** — Willis was from Butte. He enlisted in the French *Escadrille* and became a pilot in 1917.  
*Medicine Lake Wave*; MNA, Aug. 13, 1917; MNA, Nov. 25, 1918.

**HAWKS, Frank** — Frank was a pilot in World War I in 1918, following which he was employed in a bank in Lewistown. He later became a nationally-known race pilot and pilot for the Texas Oil Company.  
Montana aviation history file.

**HAYWARD, Dr. Herbert** — Dr. Hayward, a veteran of World War I, was a surgeon in Hamilton, Montana. He had a continuing interest in flying, and purchased his first airplane in 1929 from Bert Mooney. Hayward served on the original Montana Aeronautics Commission, created in 1945, representing the Montana Pilots' Association. He was an active pilot until over seventy years of age.  
Montana aviation history file.

**HEFLEY, Edwin** — Eddie learned to fly in Rapid City. He came to Montana in 1928 and was employed as an executive pilot by Tip O'Neill in Great Falls and Cut Bank, later moving to Shreveport, Louisiana.  
Montana aviation history file.

**HENRICKSON, Herm** — Herm was a Harlowton pilot who learned to fly in 1928 and is credited with developing a successful technique of aerial fish planting. He was the first president of the Montana Pilots' Association.  
Montana aviation history file.

**HERRIN, Sol** — Sol was a Miles City businessman who was one of the stockholders in a Miles City aviation company in 1920. He learned to fly in 1927.  
Montana aviation history file.

**HESSER, J. W.** — Jack was from Whitehall, and was a pilot in 1917 in World War I. He barnstormed Montana cities with an OX5 Jenny in the early 'twenties.  
Montana aviation history file.

**HICKEY, Harry** — Harry was an official in the Inland Empire flying company of Butte in 1921.  
MNA, Feb. 2, 1920, p. 141.

**HILL, "Spud"** — Spud was a barnstorming pilot flying a Jenny out of Havre in 1919.  
MNA, July 7, 1919, p. 319.

**HILLS, Kirk L.** — Kirk Hills was a banker and Miles City businessman who was one of the stockholders in a Miles City aviation company in 1920, later moving to Baker. His son was a pilot in the Army Air Corps in World War II, and is now the personal jet pilot for Haile Selassie, emperor of Ethiopia.  
MNA, Jan. 24, 1921, p. 131.

**HINK, Elmer** — Elmer Hink of Minneapolis had a flying circus which toured many Montana cities in 1923.  
Montana aviation history file.

**HOCKERSMITH, H. J.** — Hockersmith learned to fly in Great Falls in 1928, later barnstorming many Montana cities and then becoming a Great Falls policeman.  
Montana aviation history file.

**HOGAN, Harvey** — Hogan, a farmer with an active flying career of more than thirty years, lives south of Peerless. He learned to fly in 1928, purchased his own airplane, and barnstormed in Canadian border communities.  
Montana aviation history file.

**HOLLENBECK, Henry "Hank"** — Hank was a World War I Navy pilot. He flew the flying mail boat in the 'twenties between North Island and Fleet Hq. at San Pedro, California. He was an airline pilot for National Parks Airways, based in Butte; a Navy pilot in World War II; and is now retired, living at Reno, Nevada.  
Montana aviation history file.

**HOLMES, John Wendell** — Jack, from Three Forks, Montana, was a pilot in World War I in 1918.  
Montana aviation history file.

**HOPKINS, Robert** — Bob learned to fly in Butte and was a pilot in 1928.  
MNA, Aug. 6, 1928.

**HOPWOOD, Bruce** — Bruce Hopwood of Billings was a World War I pilot in 1918.  
MNA, Oct. 7, 1918, Vol. 1.

**HOUPERT, Andre** — Andre, from Great Falls was a World War I pilot in 1917.  
MNA, July 30, 1917.

**HOTALING, Jack** — Jack learned to fly in Miles City in 1928. He was an active barnstormer and flight instructor during World War II, later becoming executive pilot for Governor Babeock.  
Montana aviation history file.

**HOWARD, Ralph** — Ralph, from Polson, learned to fly and became a Boeing test pilot in 1928.  
*Bridger Times*, Dec. 27, 1928, p. 2.

**HOYLE, L. A.** — Les was a Winnett banker who learned to fly in 1921 and who barnstormed Montana cities in the early 'twenties.  
*Great Falls Tribune*, Sept. 12, 1923, p. 12.



**HUGHES, Emerson** — Hughes was raised on a ranch in the Big Hole country. Art Stephenson taught him to fly in 1927. Hughes owned a Waco 10 and barnstormed Montana towns including Dillon and Miles City. He was a flying stockman in the Big Hole, and invented a hay buncher which he patented and which was manufactured by an Idaho implement company. Montana aviation history file.

**HUGHES, George A.** — George was an electrical engineer in Miles City and Glendive, later doing electrical research in which he built the first electrically heated flying suit worn by Maj. John A. MacRaedy who, in 1921, broke the world's altitude record, flying to a height of 40,500 feet at Dayton, Ohio. MNA, Mar. 8, 1920, p. 180.

**HUNT, Oscar** — Professor Hunt made the first balloon ascension in Montana at the State Industrial Exposition in Helena in September of 1885. Montana aviation history file.

**HUNTOEN, Clarence S.** — Clarence was from Lewistown, and a World War I pilot in 1918. Montana aviation history file.

**HUSSER, Dr.** — Dr. Husser was a Havre physician who purchased two airplanes and engaged in barnstorming operations in 1930. Montana aviation history file.

**JACOBS, Chet** — Chet was a flight instructor at North Island in San Diego in 1917. He was from Minot, North Dakota. Returning to Minot, he had an active flying career for many years, including barnstorming both in North Dakota and in Montana. Jacobs was one of the pilots who flew east with pictures of the Dempsey-Gibbons fight in 1923. He later was one of the original pilots on the Chicago-Minneapolis airline operated by "Pop" Dickinson, and flew as a copilot on the Fords for Mamer Airlines out of Spokane. MNA, Sept. 5, 1921, p. 384.

**JACOBS, Mark** — Mark learned to fly in Miles City in 1928, later moving to Minneapolis, where he designed and manufactured a wind-driven generator for farm use, and where he continued to use an airplane in his business. Montana aviation history file.

**JELLISON, Robert** — Bob was a Canadian pilot in World War I. He barnstormed the hi-line, first locating in Havre in 1928, and then moving to Shelby and then Kalispell. In World War II, Bob was a flight instructor for a contract flight school in California. Montana aviation history file.

**JOHNSON, Ben H.** — Ben was a World War I pilot from Plentywood, Montana. Montana aviation history file.

**JOHNSON, Byron A. C.** — Byron was a World War I pilot from Harlowton. Montana aviation history file.

**JOHNSON, Dick** — Dick was the brother of Bob Johnson of Missoula. He learned to fly in 1930, and was recognized as an outstanding authority on mountain flying techniques. Montana aviation history file.

**JOHNSON, Howard A.** — Howard was a World War I pilot from Butte. He returned to Montana, becoming a prominent attorney and judge, and now resides in Butte. One of his sons was a pilot in World War II, and is a recognized physicist and meteorologist with the McDonald Aircraft Company in St. Louis, concerned with ceramics used in space flight. MNA, Nov. 29, 1920, p. 61.

**JOHNSON, J. P.** — Johnson was a Miles City businessman who learned to fly with Frank Wiley in Miles City in 1928. He continued an active interest in aviation and flying, making extensive use of his airplane in his business. Montana aviation history file.

**JOHNSON, Robert R.** — Bob Johnson of Missoula, Montana, learned to fly with Nick Mamer in Spokane, returning to Montana where he engaged in commercial flying and headed

the Johnson Flying Service, contractors for the United States Forest Service, and the largest flight operation of its kind in this country. He served on the Montana Aeronautics Commission.

*Bridger Times*, Sept. 1, 1927, p. 2; Sept. 5, 6, 7, 8, 9, 1927; MNA, Sept. 23, 1929.

**JORDAN, Lem** — Lem was a Department of Commerce aviation inspector who, on his itinerary, made frequent visits to many Montana cities in 1930. Montana aviation history file.

**KEIM, Neil** — Neil learned to fly with Nick Mamer in Spokane. He was associated in Missoula with Lonny Brennan, and then again with Mamer in barnstorming operations, following which he engaged in commercial flying in Seattle. He returned to Montana where he is now employed by the Anaconda Company at their aluminum plant in Columbia Falls. Montana aviation history file.

**KELLY, Dennis** — Dennis was from Glendive, and a locomotive engineer on the Northern Pacific. He learned to fly in 1928 and flew actively during the early 'thirties. Montana aviation history file.

**KELLY, G. E. M.** — Lt. Kelly, of Great Falls, Montana, enlisted in the Army and was one of the first Army aviators. He was the second Army aviator to be killed in an airplane crash. The crash occurred on the Mexican border in San Antonio, Texas, in 1911. Kelly Field, Texas, is named for him. MNA, Oct. 8, 1917, Vol. 1, p. 15; MNA, Aug. 6, 1917.

**KELTUS, John** — John was from Anaconda, and was a World War I pilot in 1918. Montana aviation history file.

**KING, Marcellus** — Mark was a Minnesota barnstormer who did exhibition flying and barnstorming in Montana in the early 'thirties. Montana aviation history file.

**KITCHINGMAN, R. F.** — "Kitch" was a World War I pilot who engaged in commercial flying in the 'twenties, coming to Montana as a mapping pilot for Aero Service Corporation of Philadelphia. He served again in World War II, and then was associated with the Great Falls Chamber of Commerce, now a member of the State Highway Commission and a rancher in the Dearborn area. Montana aviation history file.

**KLIES, Ed** — Ed was a Great Falls businessman who, in addition to operating the Municipal Transit Service, organized and operated an airline in the 'twenties between Great Falls and Billings.

**KLINEMAN, Henry** — Henry was from Scobey. He learned to fly and purchased his own airplane in 1928, later moving to Chicago where he was an air mail pilot flying between Cleveland and Chicago. Montana aviation history file.

**KNOCKLES, Johnny** — Johnny came to Billings from Missouri where, in 1928, he was employed by Bob Westover as a pilot on aircraft sales and barnstorming. Knockles was killed while demonstrating an airplane to a prospect in Miles City. Montana aviation history file.

**KOESSLER, Horace H.** — "Shorty" Koessler was a rancher in western Montana. He learned to fly in the early 'twenties and then graduated from medical school. He was a flight surgeon in the Air Force in World War II, and is now a businessman engaged in lumbering in the Missoula area. Montana aviation history file.

**KRUG, George** — George learned to fly in Glendive in the 'twenties and engaged in flight instruction and barnstorming operations. He was a flight instructor in civilian contract schools during World War II. Montana aviation history file.

**LACEY, A. J.** — Lacey was a barnstorming pilot employed by Billy Combes in Sidney in 1927. He came to Montana



from Minneapolis where he was allegedly involved in flying a Waco 9 to Glendive without the owner's consent. He was later employed by Cessna Aircraft of Wichita, Kansas.

*Great Falls Tribune*, April 17, 1930.

**LAMB, L. W.** — L. W. Lamb of Billings was a businessman who operated airplanes in his business in the early 'twenties.

MNA, Dec. 8, 1919, p. 73.

**LARSON, C. H.** — Larson was a parachute jumper for Bert Cole, and was killed at a Glendive fair in 1921.

*Helena Independent*, Sept. 17, 1921, p. 1.

**LAY, Henry** — Henry engaged in aviation activities in Helena with his brother, Jack, in airplane construction.

MNA, April 9, 1928; MNA, Mar. 4, 1929.

**LAY, Jack** — Jack, with an active interest in aviation, designed and built an airplane in the 'twenties. The Lay brothers are still actively engaged in aviation.

MNA, April 9, 1928; MNA, Mar. 4, 1929.

**LEE, Helen** — Helen Lee of Fort Benton, Montana, became secretary to a stockbroker in Los Angeles, following which she was the business manager of a flight operation engaged in aircraft sales, charter work and flight instruction. Later moving to Mexico, she administered the business operation of a Mexican airline operating between Tereon and Mexico City. Miss Lee now lives in North Hollywood, California, where she publishes an aviation magazine featuring early day pilots in California.

Montana aviation history file.

**LEE, O. E.** — Lee was a Wolf Point and Billings businessman, engaged in flight operations and aircraft sales, and in aircraft financing during the 'twenties and early 'thirties, being distributor in Montana for the American Eagle airplane.

Montana aviation history file.

**LEFERINK, Dick** — Dick was from Casper, Wyoming. He barnstormed Montana cities in the 'twenties, including the Custer celebration at the Crow Agency in 1926. He later inaugurated Wyoming Air Service, which served cities in Colorado, Wyoming, and Billings, Montana.

Montana aviation history file.

**LEIGHTENER, "Jiggs"** — Jiggs, a Powder River rancher, learned to fly in the 'twenties. He was a military pilot during World War II, following which he has been engaged both in ranching and in commercial aviation in the Sheridan, Wyoming area.

Montana aviation history file.

**LEITER, Joseph** — Joe was a World War I pilot in 1918. He purchased an airplane which he used in his ranch operations south of Forsyth.

MNA, July 3, 1919, p. 311.

**LENARD, "Shorty"** — Shorty, of Great Falls, was a World War I pilot.

MNA, Nov. 29, 1920, p. 61.

**LEONARD, Cecil** — Cecil Leonard, from Glasgow, was a World War I pilot in 1918.

Montana aviation history file.

**LEONARD, J. Cecil** — Cecil Leonard of Glendive was a World War I pilot in 1918.

Montana aviation history file.

**LEONARD, Warren B.** — Warren Leonard of Great Falls was a World War I pilot in 1918.

Montana aviation history file.

**LINDBERGH, Charles A.** — Charlie Lindbergh came to Montana in 1922 with a barnstorming team, as a stunt man. During that year he was employed as an airplane mechanic in barnstorming by Bob Westover. His later flying accomplishments are well known by everyone.

*Bridger Times*, Aug. 18, 1927, p. 2; MNA, May 30, 1927;

MNA, July 14, 1927; MNA, Aug. 29, 1927; MNA, Sept. 12, 1927;

MNA, Feb. 13, 1928.

**LINDEMEYER, Louis** — Louis was a Butte mechanic working actively with the Lay brothers in Helena, in designing and building their first airplane.

MNA, Oct. 4, 1928; MNA, July 11, 1929.

**LINDER, John** — John was a Helena inventor who, in 1910, built a model dirigible balloon powered with an electric motor. A unique feature of this model airship was a propeller with a vertical thrust to give additional lift. This man's airship developments did not go beyond the model stage.

*Helena Daily Independent*, April 29, 1911, p. 5.

**LINDSAY, Morris G.** — Morris Lindsay of Billings engaged actively in barnstorming operations in the 'twenties. He later became a telephone company employee and served in flying in the Navy in World War II. He is active in National Guard and Navy Reserve flying operations in Great Falls.

Montana aviation history file.

**LOCKWOOD, John** — John was from Missoula. He was a parachute jumper in 1927, doing exhibition jumps at celebrations in many Montana cities and also in Washington and Oregon.

Montana aviation history file.

**LOGAN, Dick** — Dick, a rancher in the Billings area, became the first official airport manager in the state. He managed the Billings airport for some thirty years; Logan Field at Billings is named for him.

Montana aviation history file.

**LONGEWAY, Forrest H.** — Forrest Longeway of Great Falls, Montana, was a pilot in World War I. He was Montana's best-known military aviator. He barnstormed Montana in the early 'twenties, then accepted an appointment with the Department of Commerce, becoming a safety inspector in Minneapolis. He was again in the service in World War II, following which he was a safety agent with the Department of Commerce.

MNA, 1917, Vol. 1, pp. 69, 113; MNA, Dec. 9, 1918, p. 77;

MNA, 1918, Vol. 1, pp. 260, 297, 391; MNA, June 23, 1919, p. 297;

MNA, Nov. 29, 1920, p. 61.

**LOWERS, George "Dewey"** — Dewey barnstormed Montana in the early 'twenties. He was from Iowa. He later returned to Montana, locating in Wolf Point, where he was the county surveyor and engaged in general aviation activities through the 'thirties. He now operates a trailer court in Pocatello, Idaho.

Montana aviation history file.

**LOWRY, George** — George was a Butte electrician and a native of Homestake. He purchased a balloon and parachute in 1908 and made exhibition parachute jumps as an avocation throughout the western states, appearing at fairs and celebrations in many cities. Lowry continued his jumping until 1917. He retired in Butte some years ago, where he had been employed in turn by the Butte Streetcar Company, the Montana Power Company, and the Anaconda Company.

Montana aviation history file.

**LOWRY, William** — William Lowry was from Whitehall, and a pilot in World War I. Returning to Montana, he was one of the judges at the first air meet, held in Helena in 1927, at the time Charlie Lindbergh visited the state.

Montana aviation history file.

**LUCAS, Al** — Al was from Livingston, and he learned to fly in Billings in the early 'twenties, being employed by Bob Westover. He next became an airline pilot flying for Wyoming Air Service.

Montana aviation history file.

**LUCAS, Vern** — Vern was a World War I pilot from Havre, Montana. He barnstormed Montana cities during the 'twenties and was employed as a flight instructor by Bob Westover of Billings, later going to the east coast where he was employed as a radio technician on an airline flying out of Boston.

Montana aviation history file.

**LUCKY, John** — John was a Butte businessman who, in 1927, purchased and operated his own airplane.

Montana aviation history file.



**LUND, Bus** — Bus Lund of Butte was employed by National Parks Airways, becoming a pilot for that company,

Montana aviation history file.

**LUND, Carl** — Carl Lund was from Butte, was employed by National Parks Airways, becoming a pilot for the company, and both he and his brother are still engaged in civilian flying operations.

MNA, July 11, 1929.

**LUND, Edward** — Eddie of Kalispell graduated from Flathead County High School in 1923, when he started an aviation career with the Douglas Company. He later became an aeronautical engineer for Howard Hughes.

Kalispell *Daily Interlake*, April 19, 1936.

**LUND, Freddie** — Freddie was a garage mechanic in Scobey. He enlisted in the army in 1918, following which he became a stunt man, wing-walker and pilot for the Gates Flying Circus. He was later an exhibition pilot for the Waco Company, participating in the National Air Races.

Montana aviation history file.

**LYCAN, William J. B.** — Lycan was an East Helena man who became a pilot in 1918 during World War I.

Montana aviation history file.

**LYNCH, Harold Jaek "Cupey"** — Cupey came to Montana from Lincoln, Nebraska on a barnstorming tour in 1919. He had learned to fly in 1911, was a World War I pilot, and then located in Montana, at Butte, where he engaged in several aviation enterprises. Charlie Lindbergh was associated with Lynch in barnstorming operations in the Billings area. Lynch later became executive pilot for the W. A. Clark mining family of Butte. With young Clark, he was killed in an airplane accident in Tucson, Arizona.

MNA, Dec. 8, 1919, p. 73; MNA, June 7, 1926; *Billings Gazette*, Sept. 16, 1926; MNA, May 30, 1927; MNA, Sept. 15, 1927; MNA, Nov. 3, 1927; MNA, July 11, 1929; *Daily Missoulian*, Centennial Edition, Sec. C, p. 22.

**MALLORY, James** — James was a World War I pilot from Butte. He flew with the Royal Flying Corps.

MNA, 1917, Vol. 1, p. 180.

**MAMER, Nicholas B.** — Nick was a World War I pilot, later locating in Spokane. He was very active in Army reserve flying and in barnstorming and civil aircraft operations, organizing an east-west airline operating between Seattle and St. Paul, through Montana. Mamer piloted the "Spokane Sun God" in a non-stop, world's record flight from Spokane to the west coast to New York, returning to Spokane. He later became a pilot on Northwest Airlines.

*Bridger Times*, Dec. 27, 1928, p. 22.

**MARONEY, T. T.** — T. T. Maroney was Montana's first official aviator, being designated as such by the State Legislature in 1912. He built two airplanes in Great Falls in 1911 and attempted flights, following which he took flight training at the Curtiss School at North Island, San Diego, California, and returned to Montana. He did exhibition flying in Montana cities, later going to Seattle where he gave Bill Boving, the founder of the Boeing Aircraft company, his first airplane ride.

*Great Falls Tribune*, May 14, 1911, p. 9; June 15, 1911, p. 10; June 24, 1911, p. 10; July 6, 1911, p. 3; Nov. 29, 1911, p. 8; Dec. 21, 1911; p. 8; *Butte Miner*, June 15, 1911, p. 8;

*Kalispell Journal*, Aug. 13, 1913.

**MARS, J. C. "Bud"** — Mars was an exhibition pilot flying for the Curtiss Exhibition Company, and he made the first airplane flight at the Montana State Fair in 1910. Mars attempted a flight across the Continental Divide but, getting in a downdraft, was forced to land, damaging his airplane.

*Great Falls Tribune*, Feb. 22, 1910; Sept. 14, 1910; Sept. 25, 1910; July 16, 1911; July 18, 1911; *New York Herald*, Oct. 2, 1910;

*Helena Independent*, Oct. 2, 1910.

**MARSH, Herbert** — Herb Marsh from Great Falls was the first manager for National Parks Airways in Great Falls in 1928.

MNA, Sept. 10, 1928.

**MATHEWS, Thomas P.** — Tom Mathews of Roundup was active in civil aviation in California, learning to fly and being employed by the Ryan Aeronautical Company in San Diego. Mathews was public relations man for Ryan at the time they built the "Spirit of St. Louis" for Charles Lindbergh. He now resides at Monterey, California.

Montana aviation history file.

**MATTHEWS, Thomas K.** — Tom Matthews was a World War I pilot from Missoula.

Montana aviation history file.

**MATTHEWS, Tom** — Tom Matthews of Gillette, Wyoming, was active in commercial aviation in Miles City in 1929, being associated with the Yellowstone Flying Service, which was engaged in various types of commercial aviation. Matthews participated in the aerial refueling of the "Spokane Sun God," which established a world's record for a nonstop flight both ways across the country from Spokane, Wash.

Montana aviation history file.

**MAYBEE, Jack** — Jack was from Havre. He purchased an airplane in 1919 and learned to fly, barnstorming many hi-line cities with an OX5 Jenny.

MNA, July 7, 1919, p. 319.

**MeBRATNEY, Cliff** — Cliff McBratney of Augusta learned to fly in 1930 and was associated with Al Gillis. He continued an active flying career in the Augusta area for some 25 years. McBratney was one of the first State Fish and Game pilots.

Montana aviation history file.

**McCLELLAN, B. C.** — B. C. McClellan operated a shooting gallery in Missoula. He was a balloon exhibition parachute jumper and in 1910 purchased a Curtiss-type airplane in Ohio, following which the airplane was wrecked. McClellan brought this airplane to Missoula where it was rebuilt and later flown by Walter Beck.

*Ravalli Republican*, Hamilton, July 1, 1910; June 10, 1910; July 8, 1910.

**McLAUGHLIN, John** — John McLaughlin was an exhibition parachute jumper, being employed by the Aero Miles City Club of Miles City, Montana, in 1920. He hailed from Hastings, Minnesota.

Montana aviation history file.

**McMAHAN, C. B. "Cowboy"** — Cowboy operated a stage line between Miles City and Broadus in 1924, following which he purchased an airplane and learned to fly in Minneapolis, returning to Montana where he barnstormed and engaged in commercial aviation in the Billings area. Following this he had a colorful flying career in aerial pipeline patrol operations.

Montana aviation history file.

**McMILLAN, Everett L. "Mae"** — Mac learned to fly in the Army and was employed by Earl Vance in commercial flight operations in Great Falls in 1928. Following this he became an airline pilot for TWA.

Montana aviation history file.

**MINERD, Ken** — Ken was employed by National Parks Airways as an airline pilot basing in Butte in 1928. He later went to Guatemala where he flew a Boeing Trimotor in the transportation of chicle from the interior to the coastal shipping point.

Montana aviation history file.

**MILBURN, George "Jack"** — Jack Milburn was a World War I pilot in 1917, flying for the French, and then transferring to our Army. Milburn returned to Montana where he was active in flying in the Army reserve, and a prominent rancher. Jack was one of the judges at the first air meet, held in Helena in 1927.

MNA, Nov. 29, 1920, p. 61.

**MILLIGAN, Roy** — Roy Milligan of Miles City learned to fly in 1928 and continued flying as an avocation in conjunction with the operation of the Milligan Hotel. He served as State Wing Commander of the Civil Air Patrol.

Montana aviation history file.



**MINNERLY, W. H. "Turk"** — Turk, hailing from Missoula, learned to fly with the Thomas Company in Ithaca, New York. He did exhibition flying and passenger carrying with a flying boat in Florida in 1912, later going to Guatemala where he was the personal pilot of the Guatemalan president in 1915. Minnerly returned to this country, working for the Curtiss Company, until after World War I, and then returned to Montana. He was recently retired as a locomotive engineer in Missoula.

Montana aviation history file.

**MOLTHEN, Fred "Dutch"** — Dutch, of Butte, was a Marine Corps football player in 1917. He was killed while learning to fly at Paris Island, South Carolina.

MNA, July 5, 1920, pp. 316, 319.

**MOLUMBY, Loy** — Loy was a pilot in World War I from Great Falls. He returned to Montana where he was a practicing attorney and the first commander of the American Legion in the state.

*Great Falls Tribune*, Sept. 11, 1923, p. 12; MNA, May 7, 1923;

MNA, Sept. 9, 1918; MNA, May 14, 1923.

**MOONEY, Bert** — Bert learned to fly in Butte in 1927. He became a commercial flight operator and an airline pilot on National Parks Airways and Western Airlines.

MNA, June 11, 1929.

**MOORE, Bill** — Bill was a Department of Commerce inspector visiting Montana cities in 1929. He continued a civil aviation career with the government for some 35 years, with an intermission when he served as a military pilot in World War II.

Montana aviation history file.

**MOORE, Perry** — Perry, from Two Dot, Montana, learned to fly in 1920 and was one of Montana's first flying ranchers.

Montana aviation history file.

**MORRISON, R. D. "Red"** — Red learned to fly with Ryans in San Diego, coming to Montana in 1931 where, in Helena, he engaged in commercial flying, later serving as a military pilot in World War II.

Montana aviation history file.

**MOUTON, Monte** — Monte was a Department of Commerce inspector visiting Montana cities in 1930, later having a regional assignment in San Francisco.

Montana aviation history file.

**MUMSICH, John** — Johnny, of Conrad, Montana, learned to fly with Earl Vance in 1928, and has since continuously engaged in commercial flight operations.

Montana aviation history file.

**MUNSEN, H. H.** — Munsen was a Great Falls telegrapher who built himself an airplane in 1909. He launched his machine down Prospect Hill, making a flight of some 200 feet. The machine was demolished. He constructed a second machine, of which there is no record except that it was powered with a 20 hp. engine. *Great Falls Tribune*, July 30, 1909.

**MUNTER, Herb** — Herb at one time lived in Great Falls. He learned to fly with T. T. Maroney in Seattle in 1915, following which he did exhibition flying and student instruction in Washington and Oregon. Munter served in the Navy and, after retiring from the Navy at the end of World War II, organized and operated West Coast Airlines, a local operation serving coastland cities.

Montana aviation history file.

**MUTCHLER, J. E.** — Joe was a mathematics teacher in the Miles City high school in 1927, where he taught navigation and meteorology in ground school courses that were offered to the high school students at that time. He moved to Boise, Idaho, where he continued teaching and was active in flying.

Montana aviation history file.

**NEAR, Harold K.** — Harold of Thompson Falls was a World War I pilot and flight instructor. He taught Glen Neel to fly in the service, and later returned to Montana where he

was area manager for the Montana Power Company in Glasgow and in Bozeman.

Montana aviation history file.

**NEEDHAM, J. E.** — J. E. Needham of Butte was active in a commercial flight operation organized in that city in 1920.

MNA, Dec. 8, 1919, p. 73.

**NEEL, Glen** — Glen was a Department of Commerce inspector visiting many Montana cities in 1930. He was the first resident inspector for the state, located in Helena. He continued an active flying career through World War II.

Montana aviation history file.

**NELSON, Marie** — Marie Nelson Dean, now of Helena, lived in Butte where she learned to fly in 1928 and was one of the first commercially certified woman pilots in Montana.

*Great Falls Tribune*, Nov. 28, 1928; Feb. 14, 1929; Feb. 15, 1929;

*Butte Standard*, Nov. 28, 1928.

**NELSON, Tod** — Tod was a World War I pilot and barnstormed the Billings area in 1922 with Charlie Lindbergh as a wingwalker and parachute jumper. Nelson was employed by Bob Westover.

Montana aviation history file.

**NERBY, E. S.** — Nerby of Great Falls was a World War I pilot in 1918.

Montana aviation history file.

**NEWCOMB, Wert** — Wert, a Miles City grocer, was active in the Aero Miles City Club as a stockholder in 1920. He participated in the flight operations by that company at the state fair in 1921.

Montana aviation history file.

**NICHOLLS, Joe** — Joe Nicholls of Laurel learned to fly with Andy Anderson and operated his own airplane in 1930.

Montana aviation history file.

**O'LEARY, Arthur T.** — Arthur O'Leary of Butte experimented extensively with a model airplane of unusual design in 1917.

MNA, 1917, Vol. 1, p. 121.

**OWEN, Mrs. Louise** — see DeVeau, Ruby.

**PACKARD, Ira V.** — Ira was a bookkeeper for the Westland Oil Company in Scobey in 1926. He learned to fly with the Yellowstone Flying School in Miles City in 1928, following which he did barnstorming and student instruction work in Montana and Minnesota, then locating in Nebraska. He later became the first Director of Aeronautics for the state of Nebraska. Packard is credited with initiating the procedure of numbering airport runways by compass headings. He served as an accident investigation officer in World War II.

Montana aviation history file.

**PANGBORN, Clyde** — Clyde barnstormed Montana with three airplanes in 1923. He later headed up Gates' Flying Circus, a large barnstorming operation in the east, and was recognized in a history-making, nonstop flight from Tokyo to Wenatchee, Washington, his home town.

Montana aviation history file.

**PARKER, Austin J.** — Austin Parker of Helena was a World War I pilot in 1918. He was a recognized feature story writer, and the brother of Mrs. Ted Collins of Helena.

MNA, 1918, Vol. 1, p. 273.

**PETRIE, Charles M.** — Charles Petrie, a telegrapher living at Kremlin, built and flew his own airplane, a Petenpole, in 1930. Petrie is now considered one of Montana's senior pilots.

Montana aviation history file.

**PHAILLEN, Ole** — Ole barnstormed many eastern Montana towns in 1930. He developed and manufactured the Phahlen propeller, which was a remarkably efficient wooden propeller popular in the 'thirties.

Montana aviation history file.

**PHELPS, Dr. A. G.** — Dr. Phelps, a Missoula dentist, learned to fly and in 1927 was the proud owner of an OX5 Swallow airplane in Missoula.

MNA, Sept. 23, 1929.



**PIERSON, Mrs. Carl** — Mrs. Pierson, who resided in Butte in later years, at one time was an accomplished dirigible pilot, acquiring considerable experience with her former husband, Stanley Spencer, who was engaged in lighter-than-air activities in England in 1898.

*Motoring Illustrated*, Aug. 2, 1902; MNA, Dec. 22, 1919, p. 89.

**PITTS, Raymond B.** — Ray, of Bozeman, was a World War I pilot in 1918.

Montana aviation history file.

**PLANK, F. W.** — Plank was a railroad engineer for the Great Northern Railway, living in Whitefish and purchasing an airplane in 1920.

Montana aviation history file.

**POMEROY, "Sonny"** — Sonny Pomeroy of Glendive and Medicine Lake owned an OX5 Travel Air which he operated out of Glendive in 1928.

Montana aviation history file.

**PONCE, Edwin M.** — Ed Ponce of Zurich was a World War I pilot in 1918.

Montana aviation history file.

**POTTER, Harry** — Harry lives in Hamilton. He was a World War I pilot, and for many years was the airport manager at Bismarck, North Dakota, and active in barnstorming. Potter was chairman of the North Dakota Aeronautics Commission.

Montana aviation history file.

**PREST, C. O.** — Prest, an aircraft designer and airplane pilot from Venice, California, married Georgia Emerson of Anaconda and barnstormed Montana in 1921 in an attempted flight from Mexico to Siberia, the flight terminating in the Yukon.

*Los Angeles Examiner*, July 15, 1921, Sec. 1, p. 9; *Anaconda Standard*,

Sept. 11 and 17, 1922; MNA, Feb. 2, 1920, p. 137;

MNA, Aug. 8, 1921, p. 358; *Shelby Promoter*, Aug. 12, 1921;

*Great Falls Tribune*, July 29, 1921, p. 5.

**PREST, Mrs. Georgia** — Georgia Prest, the former Georgia Emerson of Anaconda, was a newspaperwoman, motion picture actress, and aviation enthusiast, participating in flying activities with her husband, C. O. Prest, in 1920 in California.

MNA, Feb. 2, 1920, p. 137; MNA, Sept. 20, 1920, p. 408.

**PRICE, Harold** — Harold Price of Brush Lake learned to fly in 1927 with Nicholas Beasley in St. Louis, Missouri, and has had a continued active career in general aviation. Price now lives in Billings and for many years was a pilot for the Federal Wildlife Service.

Montana aviation history file.

**PRITZL, Art** — Art learned to fly in Oregon in 1928, following which he was employed by the Johnson Flying Service in Missoula as a mechanic. He has for many years headed the maintenance department of this specialized general aviation company, which is the largest flight operation in the country engaged in agricultural operations.

Montana aviation history file.

**PRODGER, Clifford B.** — Clifford Prodger of Great Falls learned to fly in 1912 on Long Island, New York, later going to England where he received world recognition as a then-"heavy bomber" pilot for the Hadley-Page company.

MNA, Dec. 2, 1918, p. 65; MNA, Feb. 3, 1919, p. 141;

MNA, Oct. 27, 1919, p. 25; MNA, Aug. 30, 1920, p. 381.

**RANKIN, S. W.** — Rankin, of Butte, participated in an aviation company engaged in aircraft sales and charter work in 1920.

MNA, Dec. 8, 1919, p. 73.

**REESE, George S.** — George was a World War I pilot in 1918, from Great Falls.

Montana aviation history file.

**REESE, L. G. "Shorty"** — Shorty was a World War I pilot. He came to Billings in 1920 and barnstormed many Montana towns. He and Jack Lynch organized the Inland Empire Aero Training Corporation, one of the first flying companies in the state, with activities in Billings and Butte. Shorty later returned to his native state of Florida.

MNA, Dec. 8, 1919, p. 73.

**RICE, Lt. H. E.** — Lt. Rice participated in an air show in

Miles City in 1928. He was stationed at Fort Riley, Kansas, and with Lt. Brownfield flew a Douglas O2 observation airplane to Miles City.

Montana aviation history file.

**RICHARDS, Titus** — Titus Richards of Froid, Montana, learned to fly in 1924. He was the personal pilot of Senator Schnitzler, and later engaged in flying activities in North Dakota, being the first airport manager at Fargo and then flying with the Civil Air Patrol in World War II.

Montana aviation history file.

**RIDDICK, Merrill** — Merrill was a World War I pilot in 1917 from Lewistown, Montana. His father was a Congressman, and after the war, Merrill engaged actively in barnstorming with a Hisso Standard, causing some controversy in Washington by hauling passengers from a vacant lot on Massachusetts Avenue, which was not illegal at that time. Riddick is engaged in mining operations in Phillipsburg.

MNA, 1918, Vol. 1, p. 309; MNA, Oct. 13, 1919, p. 16;

MNA, Sept. 29, 1919, p. 413; MNA, June 27, 1921, pp. 304, 308.

**RIDDICK, Rolland** — Rolland was a brother of Merrill Riddick, and a World War I pilot in 1917.

MNA, 1918, Vol. 1, p. 309.

**RINGLING, Richard T.** — Dick Ringling, a White Sulphur Springs rancher of Ringling Brothers Circus fame, sponsored many early-day aviation activities in the state, including the flight by Cromwell Dixon across the Continental Divide, and a proposed flying circus.

Montana aviation history file.

**ROBERTSON, Stuart** — Stuart, of Butte, was a World War I pilot in 1917.

MNA, 1917, Vol. 1, p. 69.

**ROBINSON, E. G.** — Robinson, from Bozeman, was a World War I pilot in 1917.

MNA, Nov. 29, 1920, p. 61.

**ROEMER, Albert John** — Albert Roemer of Perma was a World War I pilot in 1918.

Montana aviation history file.

**ROLFE, Monte** — Monte learned to fly with Glenn Curtiss at North Island, San Diego, California. He did exhibition flying in Montana in 1912 with a Curtiss pusher airplane, and astonished the natives by flying at an unheard-of-speed in making a record flight between Ekalaka and Baker, Montana, in 38 minutes.

Montana aviation history file.

**ROSE, Joseph W.** — Joe Rose of Havre was a World War I pilot in 1918.

Montana aviation history file.

**ROYSTON, Al** — Al, from Lewistown, Montana, learned to fly in 1927. He actively engaged in barnstorming, later becoming a building contractor and residing in Helena.

*Great Falls Leader*, Oct. 21, 1929.

**RUE, Lars** — Lars Rue of Froid was a World War I pilot in 1918.

Montana aviation history file.

**RUSSELL, E. L.** — E. L. Russell was a Great Falls barber who did exhibition parachute jumping in 1917.

MNA, July 30, 1917.

**RYAN, John D.** — John Ryan of Butte, an executive affiliated with the Montana Power, the Anaconda Copper Mining Company, and the Milwaukee Railroad, headed up the spruce production for this country for the construction of aircraft during the first World War in 1917.

MNA, 1918, Vol. 1, pp. 265, 309, 356, 388.

MNA, Sept. 22, 1919; MNA, Dec. 2, 1918, p. 72;

*Aerial Age* magazine, Boeing Public Library, Seattle.

**RYTENBERG, H. R.** — H. R. Rytenberg of Great Falls was active in the promotion of flying activities in that city in 1926.

MNA, June 7, 1926.

**SALISBURY, Kenneth** — Ken Salisbury of Butte was a Navy pilot in 1918 in World War I, following which he returned to Butte, engaged in a business, and owned his own airplane. He served in the Navy in World War II, and until his retirement.

Montana aviation history file.



**SANDS, Gordon** — Gordon Sands of Havre learned to fly in 1928 and has had an active flying career as a prominent Montana flying rancher. He has served as a member of the Montana Aeronautics Commission. Montana aviation history file.

**SAUNDERS, Raymond J.** — Ray Saunders of Billings was an Army pilot in 1918. He flew with the 94th aerial squadron commanded by Eddie Rickenbaeher.

MNA, Dec. 16, 1918, p. 81.

**SANDERSON, Lt. Lawson II.** — Lt. Sanderson of Great Falls was a Marine Corps pilot in World War I in 1917. He had formerly been a star athlete at the University, and also played on a championship Marine Corps football team. Sanderson continued a brilliant, active military career, serving in both World Wars I and II.

MNA, May 17, 1926; *Billings Gazette*, June 23 and 24, 1926; *Custer Battle Observance*, 1926.

**SAWTELL, Henry** — Henry was a Miles City businessman who was one of the organizers of the Aero Miles City Club in 1920.

Montana aviation history file.

**SCHEREK, George B.** — George Scherek of Missoula was a World War I pilot in 1918.

Montana aviation history file.

**SCHIRMER, Carl E.** — Carl Schirmer of Kalispell learned to fly in Spokane in 1927, and continued an active flying career in Montana and in the state of Washington. He is now employed by the Johnson Flying Service in Missoula.

Montana aviation history file.

**SCHMIDT, A. B.** — A. B. Schmidt of Butte was a businessman who participated in the organization of the Inland Empire Aero Training Corporation in 1920.

MNA, Dec. 8, 1919, p. 73.

**SCHMIDT, Felix** — Felix advised the people of Glendive in 1911 that he was an exhibition pilot, at which time he filled a Fourth of July celebration engagement by bringing a pusher-type airplane to Glendive from Chicago. The airplane didn't fly, and the unhappy spectators were prevented by the National Guard from pushing it into the Yellowstone river.

*Great Falls Tribune*, April 5, 1911.

**SCHNEIDER, Elmer** — Elmer was a Baker photographer and rancher. He learned to fly in 1928, actively barnstorming in Montana and serving in the Air Force in World War II.

Montana aviation history file.

**SCHNEIDER, John** — John did exhibition parachute jumping in many Montana cities in 1923.

*Great Falls Tribune*, Sept. 22, 1923.

**SCHNITZLER, Senator John W.** — Senator Schnitzler of Froid was a flying businessman engaged in banking and farming operations. He owned several airplanes and materially contributed to aviation development in the state.

*Bridger Times*, Aug. 25, 1927, p. 3; MNA, Jan. 14, 1929; MNA, Feb. 4, 1929; MNA, Oct. 14, 1929.

**SCHOENHAR, Lee** — Lee was an Army pilot in 1918. He flew in Montana with the Victory Loan flying circus in 1919, and again barnstormed Montana in 1927, flying in Butte, Helena and Missoula.

Montana aviation history file.

**SCHOFIELD, Lt.** — Lt. Schofield of Great Falls was a World War I pilot in 1917.

Montana aviation history file.

**SEIFERT, Wayne** — Wayne was from Bozeman. He learned to fly in 1927 and was a Montana barnstormer.

Montana aviation history file.

**SENNETT, Robert** — Sennett, from Butte, was a World War I pilot in 1918.

MNA, May 28, 1917.

**SHERIFF, Fred** — Fred, a rancher and businessman, learned to fly in 1930. He was Montana's first director of aeronautics,

and administered the WPA federal airport development program in the state in the early 'thirties.

Montana aviation history file.

**SHERRY, C. V.** — Sherry, of Bozeman, was an enlisted man who was credited with unusual sales ability in the reeruiting of prospective army aviators from the students enrolled at the State College in Bozeman in 1918.

Montana aviation history file.

**SHOEMAKER, James** — Jim Shoemaker of Helena was a World War I pilot in 1918. He graduated from Annapolis and served in World War I. He was involved in an airplane crash in 1925 at Pearl Harbor. His father was a former Lewis and Clark county sheriff, and later Billings fair secretary.

MNA, May 11, 1925.

**SHUPE, Cecil O.** — Cecil Shupe of Stanley, North Dakota, was employed by Earl Vance as a mechanic in 1925, following which he learned to fly and was an executive pilot for Dick Coughlin of the Westland Oil Company in 1927.

Montana aviation history file.

**SIMPKINS, J. C.** — J. C. Simpkins of Missoula was a pilot in 1918. Following the war, his name was perpetuated by the naming of a campus building for him.

MNA, Nov. 29, 1920, p. 61.

**SLAUGHTER, "Red"** — Red Slaughter, of Conrad, engaged in barnstorming and aircraft sales, working for Booser brothers, the Conrad Ford dealers. He later became an airline pilot for Northwest Airlines.

Montana aviation history file.

**SMITH, A. D.** — Smith was an army pilot who had relatives in Butte. He did exhibition flying at a fair in Harlowton in 1914.

MNA, Oct. 20, 1919, p. 17.

**SMITH, A. R.** — A. R. Smith of East Helena was a World War I pilot in 1918.

Montana aviation history file.

**SMITH, J. Stanley** — Stanley was a flying rancher in the White Sulphur Springs area, who purchased his own airplane and learned to fly in California before World War I.

MNA, 1917, Autumn; MNA, 1918, Vol. 1, pp. 237, 265;

MNA, 1917, Vol. 1, p. 136.

**SPATZ, Major Carl** — Maj. Spatz visited many Montana cities as a member of a flying circus in 1919. He was a graduate of West Point, and flew a Fokker airplane from Helena to Great Falls in 45 minutes. Following his visit to Montana he continued with a distinguished military career.

MNA, May 5, 1919, p. 248; MNA, Sept. 29, 1919, p. 413;

MNA, Oct. 20, 1919, p. 17.

**SPENCER, James** — James Spencer of Butte experimented with model airplanes in 1898.

MNA, Nov. 11, 1918, p. 41.

**ST. HENRY, R. C. "Lucky Bob"** — Bob St. Henry of Carrington, North Dakota, did exhibition flying for the Curtiss Company in several Montana cities in 1911.

*Miles City Daily Star*, June 20, 21, 22, 24, 25, 1911.

**STEINLE, Felix "Chief"** — Chief was a World War I pilot and flight instructor in 1917, an aggressive flying sergeant. He later became operations manager for National Parks Airways, which is still considered to be one of the most efficiently operated airlines in the United States.

Montana aviation history file.

**STEPHENSON, A. W.** — Art was a World War I pilot from Pierre, South Dakota. He was employed as a pilot by the Aero Miles City Club in 1921, following which he had an active aviation career in Montana, being the chief pilot for National Parks Airways and an airline pilot for Western Air. Stephenson again served in World War II, is now retired, and lives in California.

*Bridger Times*, Sept. 21, 1927, p. 2; MNA, April 9, 1928.

**STERLING, Fritz** — Fritz was a Missoula boy who learned to fly with the Johnson Flying Service in 1928. Later training as an Army pilot, he was stationed in Panama where



he flew for Panagra Airlines. Sterling has retired after thirty years of airline service, and lives in Miami, Florida.

Montana aviation history file.

**STEWART, Al** — Al was associated with the Highway Department in Helena and learned to fly there in 1923.

Montana aviation history file.

**STEWART, H. W.** — H. W. Stewart of Bozeman was a World War I pilot in 1918.

Montana aviation history file.

**STINSON, Katherine** — Katherine, of the famous Stinson family, did exhibition flying at the State Fair in Helena in 1913, with a Wright airplane, the first woman pilot to fly in Montana.

*Kalispell Journal*, Sept. 8, 1913, p. 2.

**STOHR, Penn** — Penn, of Plains and Superior, learned to fly in Spokane in 1926. He was employed by the Johnson Flying Service for many years in forest flying operations in Montana and in Idaho. He was recognized as an authority on mountain flying.

*Bridger Times*, Sept. 21, 1927; Montana aviation history file.

**STONE, Percy** — Percy Stone of Missoula was the son of Dean Stone of the University journalism school. He flew in 1918.

Montana aviation history file.

**STONE, T. G.** — T. G. Stone of Custer was a railroad telegrapher. He learned to fly in 1927 and was an active Montana barnstormer, later moving to Wichita, Kansas.

Montana aviation history file.

**STORY, Nelson III** — Nelson was a Bozeman businessman. He learned to fly in 1928 and continued with an active flying career. He was credited with both commercial and private flying activities.

Montana aviation history file.

**STRICKLER, Tom** — Tom was from Minneapolis. He was a National Guard pilot, then an airline pilot through Montana for Mamer Airlines in 1930, basing in Miles City.

Montana aviation history file.

**STUTZMAN, Theodore B.** — Theodore Stutzman of Jordan was a World War I pilot in 1917. He operated a flying school in Billings and Red Lodge, and had plans for designing and constructing an airplane. He was associated with the Montana Curtiss Company.

MNA, Dec. 8, 1919, p. 73.

**SUHR, Don. L.** — Don was from Great Falls, and a World War I pilot in 1918.

Montana aviation history file.

**SWANSON, Axel** — Axel was a Swedish military pilot during World War I in 1918. He barnstormed many Dakota and Montana cities in the 'twenties, and, while living in Froid, gave flying instruction to Titus Richards and Thor Thorionson.

Montana aviation history file.

**SWENSON, Dwight** — Dwight was from Scobey. He learned to fly in 1928 and flew extensively in conjunction with his automobile repair and sales business.

Montana aviation history file.

**SEVERSON, Chet** — Chet Severson of North Dakota learned to fly with Earl Hanson in Harlem in 1930, and has continued with an active flying career, including service in World War II and operating an intra-state airline between Cut Bank, Shelby, and Great Falls.

Montana aviation history file.

**TARRANT, Paul** — Paul learned to fly at Buffalo in 1926, from Bob Carrett of Sheridan. He barnstormed Wyoming and southern Montana towns throughout the 'twenties. He went to work for Bob Jellison in Shelby in 1933, later operating the Tarrant Flying Service at Billings where he was one of the first weather observation pilots in the U.S. Tarrant became an airline pilot flying for Northwest Airlines in 1943, and continued with this company until 1963, at which time he retired on his sixtieth birthday.

*Billings Gazette*, Nov. 16, 1964.

**TERRETT, Julian** — Julian, a Tongue River rancher and former Montana attorney at Hardin, was a World War I pilot in 1917.

Montana aviation history file.

**THOMPSON, DeLloyd** — Thompson did exhibition flying in Montana in 1915 with repeat performances the next year, flying both in Butte and at the State Fair in Helena. It is probable that he brought the first tractor-type airplane to the state, as nearly all previous flying had been done by pusher-type airplanes of Wright and Curtiss design.

Montana aviation history file.

**THORIONSON, Thor** — Thor, who at one time was a contender for the heavyweight boxing championship of the country, learned to fly at Froid and Plentywood in 1925, and was a student of Axel Swanson. Thorionson continued an active flying career of some forty years.

Montana aviation history file.

**THORKELSON, Dr. J.** — Dr. Thorkelson of Butte was associated with the Butte Aircraft, which incorporated as a flying company in 1929.

MNA, July 11, 1929.

**TIMM, Otto** — Otto flew first at Sidney at a Trades Exposition in 1915. He later made exhibition flights at other Montana towns, including Harlowton. Timm originally hailed from Pennsylvania and was recognized as one of the first successful aeronautical engineers. He was living at Kenmare, North Dakota, at the time he made the Montana flights.

*Sidney Herald*, Sept. 3, 1915; Sept. 15, 1916.

**TODD, Ed** — Ed was an exhibition pilot who flew at the State Fair in 1920, continuing a barnstorming career of some 40 years. He lived in Billings.

Montana aviation history file.

**TOWERS, Leslie** — Les of Polson was an army pilot in 1924, following which he became an engineer and test pilot for the Boeing Company of Seattle, associated with the development of the first B17's, four-engine bombers.

Montana aviation history file.

**TRAVIS, James** — Jim Travis, a Chestnut Valley rancher of the Great Falls area, received publicity in 1911 for his efforts in building a model of a flying machine.

*Great Falls Tribune*, Sept. 16, 1911, p. 6.

**TRUZZOLINO, John** — John was a Butte pilot who, for many years, has specialized in manufacturing and selling tamales. He learned to fly with Bert Mooney in 1929, following which he purchased an OX5 Robin. He still flies actively with a flying club in Butte.

Montana aviation history file.

**TUOHY, Kremer** — Kremer Tuohy of Butte was a World War I pilot in 1917.

MNA, May 28, 1917.

**TURNER, Dean** — Dean, an aerial photographer, in 1926 accompanied Earl Vance on barnstorming operations throughout the country. Becoming associated with Aero Service Corporation of Philadelphia, he flew extensively in Montana on aerial mapping contracts.

Montana aviation history file.

**TURNER, Kenneth** — Ken Turner was an airline pilot for National Parks Airways in 1928, with headquarters in Butte.

Montana aviation history file.

**TURNER, Rosecoe** — Roscoe, later of national fame, was a second lieutenant in the Army in World War I. He flew one of two airplanes which toured the country in 1920, visiting each state capital, including Helena.

Montana aviation history file.

**URIE, Clarence** — Clarence Urie of Livingston learned to fly in 1928, following which he engaged in commercial flying activities.

*Bridger Times*, Sept. 1, 1927, p. 2.

**VANCE, Earl T.** — Earl was a World War I pilot in 1917. He came to Montana in 1920 and is considered to have been



Montana's foremost barnstormer during the 'twenties. He again served in the Army Air Force in World War II.

*Helena Independent*, Sept. 19, 1921, p. 5; *Great Falls Tribune*, Sept. 11, 1923; *Bridger Times*, May 19, 1927; Aug. 25, 1927; Jan. 26, 1928; *Billings Gazette*, Sept. 16, 1926.

**VANCE, Esther W.** — Esther Vance of Sidney began her flying career in barnstorming activities in 1925. She received her limited commercial pilot's license in 1928, and is recognized as being Montana's first commercially certified woman pilot.

Montana aviation history file.

**VAN HOOK, H. C.** — H. C. Van Hook of Missoula was the State Forester in 1916. He at that time strongly advocated the use of aircraft on forest patrol work.

MNA, Dec. 23, 1918; p. 89.

**VEBLEN, Killing H.** — Veblen, of Big Timber, was a World War I pilot in 1918.

Montana aviation history file.

**VELIE, W. L., Sr.** — W. L. Velie, an automobile manufacturer and Montana rancher of Great Falls and Helena, headed the company under his name which, in 1927, developed and manufactured a popular and efficient five-cylinder, radial aircraft engine which powered several production airplanes in the 'twenties. *Bridger Times*, Nov. 28, 1928.

**VOLK, Nick** — Nick, of Missoula, was an aviation mechanic in 1923.

Montana aviation history file.

**WADE, Donald Dickinson** — Don Wade, of Lewistown, was a World War I pilot in 1918.

Montana aviation history file.

**WADE, Thomas** — Tom Wade of Red Lodge was an airplane inventor who developed designs for an original airplane in 1920.

MNA, Jan. 19, 1920, p. 125.

**WAITE, John David, Jr.** — John Waite of Lewistown was a World War I pilot in 1918.

Montana aviation history file.

**WAKEFIELD, Newton** — Newt Wakefield was an airline pilot serving Montana cities with Mamer Airlines in 1930.

Montana aviation history file.

**WALKER, Art** — Art was the copilot on the "Spokane Sun God" endurance flight through Montana in 1929. He was a pilot for Northwest Airlines in the 'thirties, and now heads the aviation division of the Standard Oil Company in San Francisco.

*Spokane Chronicle*, Aug. 21, 1929, Aug. 16, 1929; *Daily Missoulian*, Aug. 20, 1929; *Miles City Daily Star*, Aug. 19, 20, 1929.

**WALKER, Bert** — Bert, a Lewistown attorney, was a World War I pilot in 1918, later actively participating in commercial aviation.

Montana aviation history file.

**WARDELL, D. P.** — Wardell lived in Billings and was associated with Wyoming Airlines in 1928.

Montana aviation history file.

**WATKINS, Charles L.** — Chuck Watkins of Great Falls was a World War I pilot in 1918.

Montana aviation history file.

**WEIRICK, Arthur M.** — Art was a World War I pilot from Lewistown in 1918. He was shot down and was a German war prisoner.

Montana aviation history file.

**WESTOVER, Bob** — Bob was a barnstormer in 1922. He operated airplanes in the Billings area during the 'twenties.

Montana aviation history file.

**WESTOVER, Joe** — Joe was a World War I pilot and a brother of Bob Westover, learning to fly in 1911. He had an active flying career and again served in the Army Air Corps in World War II.

Montana aviation history file.

**WHEATLEY, Lt. Paul** — Lt. Wheatley was an airline pilot on National Parks Airways, which served Montana cities in 1928.

Montana aviation history file.

**WHITE, Clifford** — Cliff, of Miles City, learned to fly in 1928. He was active in commercial flying, later operating a tank truck line and a motel development.

Montana aviation history file.

**WHITE, George D.** — George, of Butte and Billings, was a promoter, inventor and airplane designer who was credited with the development of the White Equipoise airplane in 1912.

Montana aviation history file.

**WILBUR, Barney** — Barney was a balloon parachute jumper living in Great Falls in 1910.

*Great Falls Tribune*, Sept. 14, 1910, p. 10.

**WILSON, Eugene Edward** — Edward Wilson attended high school in Helena in 1904. He went to Annapolis, where he graduated as a Navy pilot in 1930. He is listed in "Who's Who in America", and is an executive in several aviation manufacturing companies.

*Who's Who in America*

**WILSON, Fletcher** — Fletch was a World War I pilot in 1918. He later lived in Forsyth where he owned and operated an OX5 Jenny.

Montana aviation history file.

**WILEY, Frank W.** — Frank Wiley of Miles City was a barnstormer in Montana in 1920, followed by an active flying career of some forty years.

Washington, Ind. *Herald*, May 12, 1926; Montana aviation history file.

**WILEY, H. B.** — H. B. Wiley, a Miles City banker, was president and a stockholder in the Aero Miles City Club in 1921.

Montana aviation history file.

**WINSTON, Bill** — Bill visited many Montana cities as a Department of Commerce inspector in 1930.

Montana aviation history file.

**WISE, John** — John Wise of Miles City learned to fly in 1928 and engaged in barnstorming and commercial flight operations.

Montana aviation history file.

**WOODARD, Grady** — Grady, of Billings, learned to fly in 1928. He engaged in commercial aviation in the Billings area, following which he developed a heavy-trucking business.

Montana aviation history file.

**WOODS, Ray** — Ray Woods of Great Falls learned to fly in 1928 and continued an active flying career, associated with farming operations in the Dutton area.

MNA, Jan. 24, 1929.

**WOODSIDE, Fred** — Fred was from Dillon. An automobile dealer, he learned to fly in 1927 following which he extensively used his airplane in his business.

Montana aviation history file.

**WORTH, John M.** — John learned to fly in Sidney in 1927, following which he had an active barnstorming career.

Montana aviation history file.

**WRIGHT, Wiley** — Wiley was a Department of Commerce inspector who first visited Montana cities in 1928.

Montana aviation history file.

**WYLIE, John** — John Wylie of Bozeman was a World War I pilot in 1918.

Montana aviation history file.

**YOUNG, John Battin** — John was from Helena and a World War I pilot in 1918.

Montana aviation history file.

**ZOLMAN, Martin** — Martin was from Livingston. He was a World War I pilot in 1918; he barnstormed Montana cities, and was later a Livingston deputy sheriff.

MNA, July 17, 1919, p. 313.

**ZUBER, Joe** — Joe learned to fly in Missoula in 1925. He was later employed by Boeing in Seattle in aircraft design and manufacture. *Daily Missoulian*, Centennial Edition, Sec. C, p. 22.





# Montanans in United States Army Air Service, World War I

<i>Name</i>	<i>Status</i>	<i>Grade</i>	<i>Address</i>
Baker, Solomon F.	RMA <sup>(1)</sup>	2/Lt.	Twin Bridges
Barden, Paul E.	RMA	2/Lt.	Missoula
Bergan, Clyde		Sgt.	Helena
Bergen, K. W.	RMA	2/Lt.	Helena
Blitman, Charles H.	RMA	2/Lt.	Glasgow
Bradshaw, John R.	RMA	1/Lt.	Helena
Callity, R. N.	RMA	2/Lt.	Butte
Campbell, George H.		2/Lt.	Kalispell
Cargill, Lester B.	RMA	2/Lt.	Choteau
Chamberlain, Thomas		Sgt.	Great Falls
Cole, Bert L.	RMA	2/Lt.	Miles City
Conlon, James M.	RMA	2/Lt.	Missoula
Connor, Henry W.	RMA	2/Lt.	Fort Benton
Craig, Harry		Capt.	Great Falls
Critchton, Preston L.	RMA	2/Lt.	Geraldine
Dahl, Reynold		Ensign	Great Falls
Davis, William E.	RMA	2/Lt.	Scobey
Doyle, Stanley M.		2/Lt.	Helena
Dyniker, Samuel W.	RMA	1/Lt.	Billings
Emerson, George	RMA	2/Lt.	Great Falls
Enloe, Albert		Sgt.	Great Falls
Ferron, A. R.		Sgt.	Great Falls
Finley, William P.	RMA	2/Lt.	Bozeman
Flachsenhar, Walter H.	RMA	2/Lt.	Forsyth
Forsythe, William J.	RMA	1/Lt.	Culbertson
Gatton, Cyrus G.		2/Lt.	Bozeman
Harwood, Benjamin P.	JMA <sup>(2)</sup>	Capt.	Billings
Hesser, John Westly	RMA	2/Lt.	Whitehall
Holmes, John Wendell	RMA	2/Lt.	Three Forks
Hopper, Bruce		2/Lt.	Billings
Huntoen, Clarence S.	RMA	2/Lt.	Lewistown
Johnson, Ben H.	RMA	2/Lt.	Plentywood
Johnson, Byron A. C.	RMA	2/Lt.	Harlowton
Johnson, Howard		2/Lt.	Butte
Keeley, Ned		Sgt.	Butte
Keltus, John A.	RMA	2/Lt.	Anaconda
Kitchingman, R. F.	RMA	2/Lt.	Great Falls
Leonard, Cecil	RMA	2/Lt.	Glasgow
Leonard, J. Cecil	RMA	Capt.	Glendive
Leonard, Warren B.	RMA	2/Lt.	Great Falls

<i>Name</i>	<i>Status</i>	<i>Grade</i>	<i>Address</i>
Longeway, Forrest H.	RMA	1/Lt.	Great Falls
Lycan, William J. B.	RMA	2/Lt.	East Kalispell
McIntyre, Duncan A.	RMA	2/Lt.	Glendive
Matthews, Thomas K.	RMA	2/Lt.	Missoula
Menize, Thomas M.	RMA	2/Lt.	Glendive
Milburn, George R.	RMA	2/Lt.	Billings
Molumby, Loy Joseph	RMA	2/Lt.	Great Falls
Near, Harold K.	RMA	2/Lt.	Thompson Falls
Nerby, E. S.	RMA	2/Lt.	Great Falls
Oden, Charles		Sgt.	Neihart
Pierre, Charles		Sgt.	Cascade
Pitts, Raymond B.	RMA	2/Lt.	Bozeman
Ponce, Edwin M.	RMA	1/Lt.	Zurich
Reiss, George S.	RMA	2/Lt.	Great Falls
Riddick, Merrill K.	RMA	1/Lt.	Lewistown
Riddick, Rolland C.	RMA	2/Lt.	Lewistown
Robinson, Ernest C.		2/Lt.	Lewistown
Roemer, Albert John	RMA	2/Lt.	Perma
Rose, Joseph W.	RMA	2/Lt.	Havre
Rue, Lars	RMA	2/Lt.	Froid
Sanderson, Lawson M.	MP	1/Lt.	Missoula
Saunders, Raymond J.	RMA	Lt.	Billings
Scherek, George B.	RMA	2/Lt.	Missoula
Sherry, C. B.	RMA	2/Lt.	Bozeman
Smith, Aldridge R.	RMA	2/Lt.	East Helena
Stewart, Hal Wilson	RMA	2/Lt.	Bozeman
Stone, Percy	RMA	2/Lt.	Missoula
Stutzman, Theodore B.	RMA	2/Lt.	Jordan
Suhr, Donald L., Sr.	RMA	2/Lt.	Great Falls
Sutter, Claude		Sgt.	Glasgow
Terrett, Julian	RMA	2/Lt.	Miles City
Veblen, Kiling H.	RMA	2/Lt.	Big Timber
Wade, Don Dickinson	RMA	2/Lt.	Lewistown
Waite, John David, Jr.	RMA	2/Lt.	Lewistown
Walker, Bert	RMA	2/Lt.	Lewistown
Watkins, Charles Lowell	RMA	1/Lt.	Great Falls
Wilson, A. Howard		2/Lt.	Great Falls
Wylie, John	RMA	2/Lt.	Bozeman
Young, John Batton	RMA	2/Lt.	Helena
Zolman, Martin	RMA	2/Lt.	Livingston <sup>(3)</sup>

## REFERENCES

- (1) Reserve Military Aviator (RMA)
- (2) Junior Military Aviator (JMA)
- (3) From available records. Probably incomplete.







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## Order of Daedalians

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*Shortly after the Armistice in 1918, discussions were held in many places in this country by groups of World War I pilots of the Military Services. Their purpose was to consider the creation of an organization that would perpetuate the spirit of patriotism, love of country, the memories (sad and pleasant) of their service during World War I, and the highest ideals of self-sacrifice which place service to the nation above personal safety or position — and that would further cement the ties of comradeship which bound such men together in a critical hour of their nation's history.*

*On 26 March 1934, a representative group of World War I pilots, then stationed at Maxwell Field in Montgomery, Alabama, crystallized this desire and established an organization which they named the Order of Daedalians.*

*The name "Daedalians" was decided upon because a search of history revealed that Daedalus was the first person (even though legendary) ever to accomplish heavier-than-air flight. It will be recalled that, according to*

mythology, Daedalus, with his son Icarus, was imprisoned on an island in the Aegean Sea by King Minos. Since Minos controlled the sea with his navy, and the land with his army, it was impossible for Daedalus to effect an escape by either of these mediums. However, after much meditation — perhaps extending over many years — Daedalus awoke one night exclaiming: “Minos may control the sea and the land, but not the regions of the air. I will escape that way.” He then devoted himself to a study of flight of birds, and finally fashioned himself a pair of wings, using feathers and wax. After diligent effort, and, unquestionably, many failures, he finally mastered the art of flight. He made a pair of wings for his son Icarus and taught him to fly. When all was ready for the escape, Daedalus cautioned Icarus not to fly too low else the damp of the sea would weighten his wings, and not to fly too high else the heat of the sun would melt the wax. With those instructions, father and son “took off.” All went well for some distance; then Icarus, with the exuberance of youth, began to try out his new equipment. He soared higher and higher until finally the heat from the sun did melt the wax and his wings fell off and Icarus fell into the Aegean Sea and was lost. Daedalus, however, having more mature judgment, did not subject his fragile wings to unnecessary strain, and he continued on to Sicily and landed safely, thus having accomplished the first heavier-than-air flight of which historians have knowledge.

It was therefore decided that the name “Order of Daedalians” was both fitting and proper for an organization composed of those who first flew this country’s airplanes in time of armed conflict.<sup>(1)</sup>

Montana is proud of her substantial number of World War I pilots who belong to the Order of Daedalians. Their membership list included:

Benson, Otis	Superior (Honorary)
Bergen, K. W.	Helena
Campbell, George H.	Kalispell
Doyle, Stanley M.	Helena
Flachsenhar, Walter H.	Forsyth
Johnson, Ben	Plentywood
Johnson, Howard	Butte
Kitehingman, R. F.	Great Falls
Milburn, George R.	Billings
Wiley, Frank W.	Helena (World War II)
Zempke, Hubert	Missoula (World War II)

\* \* \*

The following quotation from an address by World War I pilot Stanley Doyle (and now a Justice of the State Supreme Court) ably expresses the rare *esprit de corps* of this great airborne group of Montanans: “Fellow Daedalians:

“It is true that I come from the sovereign state of Montana, the diamond in the breast of the west, with mountains so high you can hear the rustle of angel wings if you climb their peaks and valleys so deep you can, if you



listen, hear the anguished cry of the communists as the devil increases the fires of hell.

“However, it is not the purport of my brief remarks here to dwell on the grandeur of the fourth largest state in the union.

“On the contrary, I hope to clarify in a small degree the identity, trials, sorrows and joys of that rapidly vanishing breed of men, ready for fun, fight or frolic, who flew by the seat of their pants, the American pilots of World War I.

“Being a trial lawyer before a Supreme Court Justice, I shall endeavor to take a hypothetical youngster in 1917, and trace his erratic steps through ground school, pilot training and commission as an R.M.A.

“I hasten to ask your pardon for the use of the overworked perpendicular pronoun, but necessity compels this, for comparison with my hypothetical flying cadet.

“As an only son, I had been in college, and with record celerity I became a ‘graduate by request.’ My father then built a high board fence around the table and started taking tickets. I didn’t seem to have a ticket, so I wound up as a switch foreman at Glendive, Montana, when war was declared.

“We will assume that my hypothetical cadet was born on the eastern seaboard a few short years before myself.

“We will further assume that he had an ROTC commission as a lieutenant in the armed forces, assume it was the cavalry which was the reluctant godfather of the aviation section, signal corps. Further assume that our cadet-to-be grew weary and calloused on his posterior during a horseback reconnaissance as you could throw a sack of oats between our cadet and the saddle each time the horse moved forward.

“Tired of mind and sore of body our cadet, imbued with great mental concentration decided that any seat you were strapped to had many advantages over the hurricane deck of an army bang-tail, so he asked and received a transfer to the aviation section.

“Then came that period of hurry up and wait to receive a call to one of the five ground schools, Cornell, Princeton, Illinois, Berkeley or the S.M.A. at Austin.

“Our cadet, having had nothing so far but luck, all bad, we won’t send him to Austin to be ‘pennybackered,’ but will send him to Princeton.

“There he was for eight long weeks from five in the morning to nine at night. Left foot in the air for 16 hours each day, ready for his next examination.

“Examination each week on each subject, fail once and go back a week, fail twice and become a civilian.

“Our cadet never knew the exquisite pleasure of drilling in a cemetery and playing tag with the tombstones, as did my fellow Montana Daedalians, former Chief Justice Howard Johnson, G. R. ‘Jack’ Milburn and myself at the Austin S.M.A.

“Then to pen No. 4 in section 5 of the hog display building at the fairgrounds in Dallas, better known as Camp Dick, where anything could happen and usually did.

"At long last to flying field, frequently commanded by a high-ranking cavalry officer, whose first project was to have a hitching post installed in front of headquarters for tying his horse.

"We will assume our cadet ate his three meals a day out of his mess kit at Love Field at Dallas. A great field where Mexico came north in the morning and Oklahoma south in the afternoon. Where a civilian instructor, named Buck Weaver, practiced loops from an altitude of 500 feet with a Jenny.

"Came that glorious day when our cadet removed his badge of servitude, his white hat band, and affixed two gold bars to his serge uniform that he had purchased with his own funds; the shining wings over the left breast pocket of his blouse which had a high, tight collar that made all of us look like advanced thyroid cases.

"Again the long wait for orders to be cut for overseas duty.

"Equipped with an overseas cap, Sam Browne belt and shiny cordovan boots, wearing spurs for an alternate every three weeks by order of the director of military aeronautics, our gallant lieutenant arrived at a port of embarkation, probably Hoboken.

"Comfortably installed six decks below the waterline, in a troop compartment for 50 men, he and 100 others sailed for 'sunny' France.

"This salubrious voyage can best be described by an unsung poetic pilot who wrote:

*'The trip was long, the boys arrived  
'They ripped off shirts and collars  
'The pretty maid who welcomed them  
'Made thirty thousand dollars.'*

"Our lieutenant was assigned to the 7th aviation instruction center at Clermont, France, then to the 163rd bomb squadron on the Meuse-Argonne front.

"On 9 October 1918, Billy Mitchell assembled 350 fighters and bombers to strafe and bomb the Krauts. Over thirty tons of bombs were dropped on the confused Germans.

"This was the day that General Mitchell made a dream come true. He proved that a great air force could definitely effect a ground decision on the field of battle. That is to say, everyone believed it except the waffle-panted generals of the general staff of the army.

"On November 11, 1918, France and the world echoed to the cry, 'Fini la guerre.'

"Our lieutenant returned to the states and elected to remain in the air force.

"Assigned to Maxwell Field, he became director of air strategy and tactics.

"In 1934, one of his many dreams was the creation of an organization of commissioned pilots of World War I. Thirty-one years later, we are gathered here today as members of the Order of Daedalians by reason of this man's dream, courage, and dedication.



“This officer flew in France for an ideal, to make our nation strong and capable of defense against any foreign power or combination of aggressive powers. He was not interested in the acquisition of the territory of a defeated nation; he was not interested in booty or indemnities. On the contrary, his sole thought was to return home. This ideal is best expressed by the poet Henry Van Dyke, who said:

#### AMERICA FOR ME

“*Oh, London is a man’s town  
And there’s power in the air,  
And Paris is a woman’s town  
With flowers in her hair.  
And it’s sweet to dream of Venice  
And it’s great to study Rome,  
But when it comes to living  
There’s no place like home.*

“*I know that Europe is wonderful  
Yet there’s something seems to lack,  
The past is too much with her  
And the people looking back.*

“*For the glory of the present  
Is to make the future free,  
We love our land for what she is  
And what she is to be.*

“*And so it’s home again and home again  
America for me,  
I want a ship that’s westward bound  
To plow the rolling sea.  
To the blessed land of room enough  
Beyond the ocean bars,  
Where the air is full of sunlight  
And the flag is full of stars.’*

“Ladies and gentlemen, I give you Lieutenant General Harold Lee George, United States Air Force, Retired, my hypothetical flying cadet of 1917, co-founder of the Order of Daedalians, and first National Commander.”

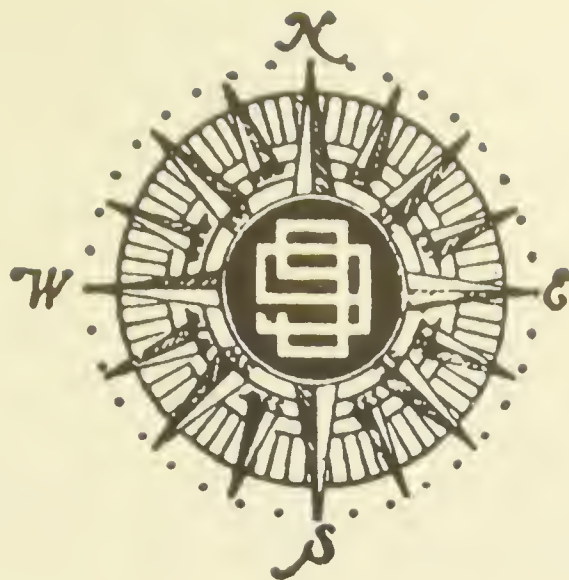
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#### REFERENCE

(1) Daedalian Headquarters, Building 1676, Kelly Air Force Base, San Antonio, Texas







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## “99’s”

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Esther Combes Vance is a charter member of the national woman’s pilot organization known as the “99’s”. This female pilots’ society was headed by Amelia Earhart and incorporated in New York on January 1, 1930. Eligibility for membership required that a member must be a woman pilot holding a pilot’s license issued by the Department of Commerce. There were only 99 charter members of this distinguished organization.

Warning to the male members of the aviation profession was issued by the “99’s” in their legal constitution, which is quoted as follows:

*“Know all men by these presents, that we, “99’s”*

*“All pilots licensed by the United States Department of Commerce, desire to form ourselves into a society with the following aims and purposes:*

- 1. The purpose of this organization shall be to promote good fellowship among licensed pilots, to encourage other women to learn to fly, and to aid in the creation of opportunities for women pilots in the field of commercial aviation.*
- 2. The name of this organization shall be the numeral representing the number of charter members, namely “99’s.”*

The “99’s” organization of women pilots is indicative of the interest of many women in becoming pilots. In Montana, by 1930, there were several pioneering ladies who had taken flight instruction and learned to fly, some of whom are listed as follows:<sup>(1)</sup>

Mrs. Ruth Marie Nelson	Butte
Dorothy Nixon	Havre
Lee Faro	Great Falls
Joann Antioch	Great Falls
Anna Lou Schaeffer	Helena
Maurine Allen	Lewistown
Esther Combes Vance	







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## The OX5 Club of America

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The OX5 Club of America was dedicated to the uncommon spirit of the pioneers of aviation. It recognized the accomplishments and contributions of those devoted men and women associated with the aviation industry during the raw era of the famed Curtiss OX5 engine.

It was no mean accomplishment to fly an airplane powered with this multiple reciprocating engine. Survival after frequent forced landings was material proof that every OX5 pilot possessed those dexterous qualities that advanced the then dubious future of air locomotion. It was a rare distinction to tame this tough brave of the early air age.

The following veteran Montana pilots were privileged to belong to the OX5 Club of America. We salute them:

Bowman, Floyd O.....	Missoula	Ladwig, W. W.....	Missoula
Bryan, C. G.....	Missoula	Lindsey, Morris G.....	Great Falls
Cavill, Stanley .....	Hamilton	Milligan, Roy .....	Miles City
Cooke, Oscar O.....	Decker	Mooney, A. S., Jr.....	Butte
Darnall, Carl V.....	Glasgow	Musgrove, Gilbert E.....	Missoula
Derry, Frank .....	Bigfork	Phillips, Everett A.....	Missoula
Doyle, Stanley M.....	Polson	Pritzl, Art .....	Missoula
Elliott, Eloise Juanita.....	Polson	Prouty, Lew .....	Kalispell
Firebaugh, J. Howard..	Great Falls	Riddick, M. K.....	Garberville, Cal.
Flynn, Chauncey T.....	Chinook	Rieke, Irvin H.....	Wolf Creek
Fox, John .....	Butte	Sands, Gordon .....	Havre
Gillis, Al .....	Billings	Schirmer, Carl .....	Missoula
Haines, Harold H.....	Terry	Schneider, Elmer.....	Miles City
Hanson, Louis .....	Lakeside	Scott, Wm. R.....	Missoula
Henrickson, Herman H....	Billings	Story, Nelson III.....	Bozeman
Johnson, Alden H.....	Wolf Point	Terrett, Julian .....	Miles City
Johnson, Robert R.....	Missoula	White, Clifford G.....	Miles City
Johnson, J. P.....	Miles City	Wiley, Frank W.....	Helena
Koessler, Horace H.....	Missoula	Woods, Ray .....	Brady
Krug, George .....	Glendive		

# Montana Pilots' Association, 1940

This very active pilot group, organized by these "old-timers," approached the jet and rocket age of the past quarter century to carry on the traditions of our air pioneers:

## Montana Pilots' Association



N. B. (Red) MATTHEWS, Missoula  
Vice President



HERMAN H. HENRICKSON, Billings  
President



Dr. LELAND G. RUSSELL, Billings  
Secretary Treasurer



ARTHUR I. HOLM, Butte



GEORGE D. LOWERS, Wolf Point



F. P. MCVEHILL, Miles City



AL G. LISS, Great Falls



## *Directory of Licensed Pilots\**

(Montana) July 31, 1928

Cooper, Byron S., T. 1529.....Vance Air Service, Great Falls  
Johnson, Robert R., T. 2772.....Missoula Hotel, Missoula  
Lynch, H. J., T. 1101.....4002 Hancock Avenue, Butte  
Mooney, Albert S., Jr., P. 2744.....1012 W. Gold Street, Butte  
Stephenson, Arthur W., T. 1379.....Dillon  
Vance, Earl T., T. 1384.....Great Falls

### Supplement to DIRECTORY OF LICENSED PILOTS

(Montana) October 1, 1928

Barnhill, Harvey W., T. 2917.....400 Third Avenue, Havre  
Beer, Kenneth V., T. 2872.....Ekalaka  
French, Edwin Roland, T. 2810.....Care Dr. G. J. French, Ronan  
Johnson, Robert R., T. 2772.....Care Missoula Hotel, Missoula  
McMillen, Everett L., T. 2875.....Box 1607, Great Falls  
Mooney, Albert S., Jr., P. 2744.....1012 West Gold Street, Butte  
Vance, Esther M. (Mrs.), P. 2180.....Great Falls  
Wiley, Frank W., T. 3007.....Mid-Continent Aircraft Co., Miles City

### Supplement to DIRECTORY OF LICENSED PILOTS

(Montana) November 1, 1928

Buck, Fred S., P. 3361.....336 Fourth Avenue, West Kalispell  
Filson, Harry R., T. 3656.....Harrison  
Fox, John Wheeler, Jr., L. C. 3659.....Care Rocky Mountain Airways,  
8 Second Street North, Great Lakes (sic)  
Lucas, Vernon R., T. 3586.....307 Alderson Street, Billings

\*True copy of documents in Esther Vance file, Mont. Hist. Library. FWW

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- (4) *Independent Record*, Helena, Montana, Aug. 27, 1885
- (5) *Independent Record*, Helena, Montana, Aug. 28, 1885
- (6) *Independent Record*, Helena, Montana, Aug. 24, 1913  
 \*Additional research reveals that a gambler named William Beson, a former Dillon resident, was known as "Sure Shot Bill," because of his success at gambling. Beson had a patent on an aeroplane control and also invented the package-carrying device later used by department stores and which he said would replace the waitresses in restaurants. Beson died in a cabin at Giltedge, near Lewistown, on October 19th, 1907. Reference Dillon Tribune Oct. 25th, 1907.
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